December xxx, 2014

**LARGE DAMS ARE NOT CLEAN OR SUSTAINABLE ENERGY SOURCES**

GOVERNMENTS, INTERNATIONAL ORGANIZATIONS AND FINANCIAL INSTITUTIONS MUST IMPLEMENT REAL SOLUTIONS TO CLIMATE CHANGE

According to the World Commission on Dams, fifty thousand large dams had been built by the year 2000, disrupting more than 60 percent of Earth’s rivers.[[1]](#footnote-1) In Latin America alone, 973 hydroelectric dams of different sizes are operating, and roughly 1,600 more are in planning or construction phases; as many as 254 of these are expected to be built in the Amazon Basin.[[2]](#footnote-2) One of the major arguments for the current, unprecedented boom of dam construction around the world is that large hydro projects provide a “clean energy” solution to the climate crisis.

On the contrary, scientific evidence reveals that large dams:

1. Emit greenhouse gases, including methane, especially in tropical regions;[[3]](#footnote-3)
2. Demonstrate high vulnerability to extreme droughts and flooding that are increasingly common in a changing climate;[[4]](#footnote-4)
3. Cause severe and irreparable environmental damage, especially to freshwater ecosystems and biodiversity, with consequences for vital ecosystem services at the local, regional and global levels, including regulation of the climate system;[[5]](#footnote-5)
4. Frequently involve human rights violations, such as lack of free, prior and informed consultation and consent with indigenous peoples and other traditional communities, loss of territories and livelihoods (with especially negative impacts on women, children, elderly citizens and others in vulnerable situations) as well as exploitative labor conditions among dam construction workers;
5. Incur cost overruns that average twice the initial budgets, causing major economic difficulties in developing countries, including diversion of scarce funds from investments that could be made in truly sustainable energy sources;[[6]](#footnote-6)
6. Take a long time to become operational, including frequent schedule overruns, making them an inefficient solution to the urgent energy and climate crises that they are intended to tackle;[[7]](#footnote-7)
7. Cause significant social, environmental and economic losses rarely considered in the projects’ official budgets, impoverishing local communities and gravely conflicting with their primary advertised objectives of poverty alleviation and energy for the poor.

Nevertheless, hydroelectric dams continue to be promoted as clean and sustainable energy sources to meet increasing energy demand.[[8]](#footnote-8)

**TODAY there are cleaner, more efficient, less costly and faster alternatives to respond simultaneously to legitimate energy needs and the climate crisis.** Therefore we **DEMAND** that Governments, international organizations and financial institutions immediately:

1. **Stop** considering large dams as clean energy sources, given the proved negative impacts mentioned above.
2. **Implement sustainable energy solutions** that prioritize incentives for energy efficiency and decentralized renewables such as solar, wind, biomass and geothermal;
3. **Avoid** incentives for large dams from international institutions and from UNFCCC mechanisms, such as the Clean Development Mechanism or the Green Climate Fund;
4. **Incorporate** in the planning and licensing of new proposed hydroelectric projects:
   1. evaluation of the potential for greenhouse gas emissions, including methane produced by reservoirs;
   2. rigorous analysis of vulnerability to severe droughts and flooding, given scenarios of climate change;
   3. lessons learned regarding the true economic costs and schedule overruns of large dams;
   4. comprehensive evaluation of social and environmental impacts and risks;, including cumulative impacts of dam cascades and related infrastructure projects, making use of planning instruments such as Strategic Environmental Assessments at the basin level;[[9]](#footnote-9)
   5. full respect for the rights of indigenous peoples and other local communities, including territorial rights and the right to free, prior and informed consultation and consent;
5. **Adopt** inclusive and transparent decision-making processes, taking into account the whole spectrum of energy alternatives, identifying options that are best suited to meet the needs of societies and communities, while avoiding harmful and unnecessary projects.

**Why are dams not clean energy sources and why are alternatives needed?**

1. **Because they contribute to climate change**

Construction and operation of large dams causes emissions of CO2 and, especially in tropical regions, they emit methane from the large amounts of decaying organic matter retained in flooded reservoirs. The greenhouse gas effect of methane is 20 to 40 times more powerful than that of CO2.[[10]](#footnote-10)

1. **Because they make adaptation more difficult**

Dams are not flexible enough to endure climate change. On the contrary, they are inefficient in droughts and unsafe in floods, which aggravates the risk of disasters. Moreover, they threaten entire hydrologic systems and destroy key ecosystems and fisheries, thus compromising the ability of communities to adapt to climate change.

1. **Because of the cost overruns, delays and economic damage that they entail**

Data show that the majority of dams that have been built cost 96% more than their initial budgets. This expense has been linked to the increase of public debt and to economic crisis in several countries.[[11]](#footnote-11)

1. **Because of the long time it takes them to become operational, which makes them an inferior solution to the urgent energy crisis that they are intended to tackle**

Construction of large dams takes approximately 8.6 years; more time is needed to begin operations.[[12]](#footnote-12) They last, on average, only 50 years.[[13]](#footnote-13) Experts have documented that eight out of every ten dams exceed their initial construction-time estimates by more than 44%.[[14]](#footnote-14) Dams are not an efficient solution to urgent energy demands.

1. **Because they cause** **great and irreparable environmental damage**

Large dams cause environmental damages to rivers, hydrologic basins and surrounding ecosystems, including: the worsening of water quality in rivers; the degradation of aquatic ecosystems and the disappearance of many riparian ecosystems; and serious harms to biodiversity, including the extinction of species.[[15]](#footnote-15)

1. **Because their inadequate implementation generates human rights violations and impoverishment of communities**

The human rights of the people affected by large dams have been systematically ignored. Large dams have led to forced displacement,[[16]](#footnote-16) health problems, loss of food sources and traditional ways of life, community impoverishment,[[17]](#footnote-17) and criminalization of social protest. Permitting processes are generally flawed: permits are issued without comprehensive environmental or social impact assessments, and without adequate public participation and consultation, including free, prior, informed consent processes.

Signed,

Abogadas y Abogados para la Justicia y los Derechos Humanos, A.C., México

Alianza de Comunidades y Usuarios en Defensa del Río Biobos-Nautla, México

Alianza para la Conservación y el Desarrollo (ACD), Panamá

Amazon Watch, Estados Unidos

Amazónicos por la Amazonía (AMPA), Perú

Amigos del Río San Rodrigo, México

Asamblea Veracruzana de Iniciativas y Defensa Ambiental (LAVIDA), México

Asociación Ambiente y Sociedad, Colombia

Asociación Amigos de los Parques Nacionales (AAPN), Argentina

Asociación Ceiba, Guatemala

Asociación de Ecología Social (AESO), Costa Rica

Asociación Interamericana para la Defensa del Ambiente (AIDA), Regional

Asociación Palmareña para la Recuperación del Ambiente (APRA), Costa Rica

Asociación Peruana para la Conservación de la Naturaleza, Perú

Asociación Pro Derechos Humanos (APRODEH), Perú

Asociación Proyectos Alternativos para Desarrollo Social**(**PROAL), Costa Rica

Bloque Verde, Costa Rica

Centro de Desarrollo Étnico (CEDET), Perú

Centro de Documentación en Derechos Humanos “Segundo Montes Mozo S.J.” (CSMM), Ecuador

Centro de Estudios para la Justicia Social "Tierra Digna", Colombia

Centro de Promoción y Defensa de Derechos Humanos Arequipa (CEPRODEH), Perú

Centro Humboldt, Nicaragua

Centro Mexicano de Derecho Ambiental, A.C. (CEMDA), México

Centro para la Sostenibilidad Ambiental de la Universidad Peruana Cayetano Heredia (CSA-UPCH), Perú

Colectivo Defensa Verde Naturaleza para Siempre, México

Comisión de Derechos Humanos de Ica, Perú

Comisión Ecuménica de Derechos Humanos (CEDHU), Ecuador

Comité por los Derechos en América Latina (CEDHAL), Canadá

Consejo de Ejidos y Comunidades Opositores a la Presa La Parota  (CECOP), México

Coordinadora de Afectados por Embalses y Trasvases (COAGRET), España

Coordinadora Nacional de Derechos Humanos, Perú

Derechos Humanos y Medio Ambiente, Perú

Ecologia E Ação (ECOA), Brasil

Federación Ecologista de Costa Rica (FECON), Costa Rica

Finca Amalur, Costa Rica

Fiscalía del Medio Ambiente (FIMA), Chile

Foro Ciudadano de Participación por la Justicia y los Derechos Humanos (FORO), Argentina

Fórum Solidaridad Perú, Perú

Fundación Centro de Derechos Humanos y Ambiente (CEDHA), Argentina

Fundación Ecuménica para el Desarrollo y la Paz (FEDEPAZ), Perú

Fundación GaiaPacha, Bolivia

Fundación POPOL NA, Nicaragua

Fundar, México

Grupo Ecologista Cuña Pirú, Argentina

Instituto Madeira Vivo (IMV), Brasil

International Rivers, Estados Unidos

JASS, Asociadas por lo Justo, México

Justicia para la Naturaleza, Costa Rica

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Movimiento Ciudadano frente al Cambio Climático (MOCICC), Perú

Oilwatch Mesoamérica, Costa Rica

Plataforma Interamericana de Derechos Humanos, Democracia y Desarrollo (PIDHDD Regional), Ecuador

Programa Chile Sustentable, Chile

Pueblos Unidos de la Cuenca Antigua por los Ríos Libres, México

Red Jurídica Amazónica (RAMA), Bolivia

Sociedad Peruana de Derecho Ambiental (SPDA), Perú

Unión Norte por la Vida, Costa Rica

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| **For more information:**  AIDA on dams: <http://www.aida-americas.org/es/project/grandesrepresas>  International Rivers: <http://www.internationalrivers.org/>  Report: <http://www.aida-americas.org/sites/default/files/InformeAIDA_GrandesRepreseas_BajaRes_1.pdf>  Blogs: [Desmantelando el mito de las represas](http://www.aida-americas.org/es/blog/desmantelando-el-mito-de-las-grandes-represas), [Grandes represas elefantes blancos](http://www.aida-americas.org/es/blog/grandes-represas-elefantes-blancos-caros-y-hasta-premiados-¿aprenderemos-la-lección) |

1. World Commission on Dams Report. <http://www.internationalrivers.org/files/attached-files/world_commission_on_dams_final_report.pdf> [↑](#footnote-ref-1)
2. State of the World’s Rivers. <http://www.internationalrivers.org/worldsrivers/> [↑](#footnote-ref-2)
3. 2013 IPCC Supplement to the 2006 Guidelines for National GHG Inventories: Wetlands <http://www.ipcc-nggip.iges.or.jp/public/wetlands/> [↑](#footnote-ref-3)
4. 2013 IPCC Supplement to the 2006 Guidelines for National GHG Inventories: Wetlands <http://www.ipcc-nggip.iges.or.jp/public/wetlands/> [↑](#footnote-ref-4)
5. Philip M. Fearnside 2014. *Análisis de los Principales Proyectos Hidro- Energéticos en la Región Amazónica*. DAR, CLAES <http://philip.inpa.gov.br/publ_livres/Preprints/2013/Fearnside-ANÁLISIS-Hidroelectricas-Preprint.pdf>; Nobre, Antônio, 2014. *O Futuro Climático da Amazônia*, Relatório de Avaliação Científica, ARA/MCT-INPE, http://www.ccst.inpe.br/wp-content/uploads/2014/10/Futuro-Climatico-da-Amazonia.pdf [↑](#footnote-ref-5)
6. Ansar, Atif and Flyvbjerg, Bent and Budzier, Alexander and Lunn, Daniel, Should We Build More Large Dams? The Actual Costs of Hydropower Megaproject Development (March 10, 2014). *Energy Policy*, March 2014, pp.1-14. [↑](#footnote-ref-6)
7. Ibid [↑](#footnote-ref-7)
8. Directions for the World Bank Group’s Energy Sector.

   <http://www.worldbank.org/content/dam/Worldbank/document/SDN/energy-2013-0281-2.pdf> [↑](#footnote-ref-8)
9. Paul Little, 2013. *MEGAPROYECTOS EN LA AMAZONÍA - Un análisis geopolítico y socioambiental con propuestas de mejor gobierno para la Amazonía*, RAMA/ARA/DAR. http://raisg.socioambiental.org/system/files/Megaproyectos%20Amazon%C3%ADa%20Paul%20Little.pdf [↑](#footnote-ref-9)
10. Climate and Clear Air Coalition. Short-Lived Climate Pollutants. (2011).

    <http://www.unep.org/ccac/ShortLivedClimatePollutants/tabid/101650/Default.aspx>. [↑](#footnote-ref-10)
11. Ansar, A et al. Furthermore, the Brazilian Federal Court of Accountability carried out a study of the energy projects developed between 2005 and 2012, and it concluded that almost 80% of dams will not comply with their schedule. <http://oglobo.globo.com/economia/tcu-constata-atrasos-nas-obras-de-energia-leiloadas-pelo-governo-de-2005-2012-13822128> (Spanish) [↑](#footnote-ref-11)
12. Ansar, A., et al. [↑](#footnote-ref-12)
13. Friends of the Earth, et al. Dam Removal Success Stories. (1999).

    <http://www.michigandnr.com/publications/pdfs/fishing/dams/SuccessStoriesReport.pdf> <http://www.teachengineering.org/view_lesson.php?url=collection/cub_/lessons/cub_dams/cub_dams_lesson08.xml> [↑](#footnote-ref-13)
14. Ansar, A., et al. [↑](#footnote-ref-14)
15. AIDA. Grandes Represas en América: ¿Peor el remedio que la enfermedad?

    <http://www.aida-americas.org/sites/default/files/InformeAIDA_GrandesRepreseas_BajaRes_1.pdf> (Spanish) [↑](#footnote-ref-15)
16. According to the World Commission on Dams, between 40 and 80 million people have been displaced due to large dams—approximately one out of every 100 people alive today. [↑](#footnote-ref-16)
17. Thayer Scudder, California Institute of Technology, promoted construction of dams for 58 years, believing that they were an option for the relief of poverty. He publicly changed his mind when he was 84 years old, declaring that they are not worth their cost and that many of the dams currently under construction will have disastrous consequences. New York Times. <http://www.nytimes.com/2014/08/24/opinion/sunday/large-dams-just-arent-worth-the-cost.html?emc=eta1&_r=3> [↑](#footnote-ref-17)