

# 大型水电站不应成为应对气候变化措施的十个理由

## 支持应对气候变化真正解决措施的公民社会宣言

国际金融机构、各国政府及其他行为体经常在宣传中把大型水电站描述成“清洁、绿色”的电力来源。修建大型水电站能够从应对气候变化的相关机制中获得很大的利益，包括清洁发展机制(CDM)下的碳信用、世界银行气候投资基金的借款以及其他出口信用机构和绿色债券的特别融资条件等。大坝产业提倡由绿色气候基金(Green Climate Fund)来出资支持大型水电站的建设，许多政府也将修建大坝纳入该国应对气候变化的措施当中。例如，至少有 12 个水电行业规模较大的国家政府都将扩大水力发电纳入了“国家自主贡献”(INDCs)报告中。

目前在建和规划中的水电站超过 3700 个，其中原因之一就是能够得到来自应对气候变化相关机制的支持。然而大型水电站并不是应对气候变化的正确解决方案。国内和国际应对气候变化的机制不应该将大型水电站包括在内的原因如下：

1. 大坝水库会释放出大量温室气体，尤其是在热带地区。一份经过同行评议的报告显示，水库释放的沼气（甲烷）占人为气候变化的 4%——与航天业对气候的影响相近。在某些情况下，水电站生产同样的电能比煤炭发电站排放的温室气体还多。
2. 河流每年能从大气中吸收 2 亿吨含碳气体。此外，亚马逊河、刚果河、恒河、湄公河等河流可以将淤泥冲到海里，为浮游生物提供食物，同时吸收大量的含碳气体。水电站和其他大坝会阻碍河流运送淤泥和营养物，削弱河流的碳汇效果。
3. 水电站会让水系统和能源系统更容易受到气候变化的影响。预料之外的洪水会对大坝安全产生严重的威胁：自 2010 年起，洪水仅在美国境内就导致 100 多座大坝运转失常。建坝也会导致印度的北阿坎德邦(Uttarakhand)等脆弱山区受到更加严重的洪水侵袭。同时，极端干旱出现的频率增加也让水电站的经济风险越来越高：从非洲到巴西，许多依靠水电站发电的国家都在经历水电产能不足的窘境。
4. 相比风能、太阳能以及小水电项目来说，大坝会对重要的生态系统造成严重的、不可逆的损失。受到建坝以及其他因素的影响，淡水生态系统内的生物自 1970 年起已经平均减少了 76%，高于海洋生态系统和陆地生态系统的生物减少速度。通过修建大坝来保护生态系统不受气候变化的影响就像牺牲地球的动脉来保护肺一样不合理。
5. 大型水电站对当地社区有着严重的影响，而且经常威胁到当地居民对土地、居住区域、资源、治理、文化传承、自由的事前知情同意等方面的权利。大坝的修建已经导致至少 4000-8000 万居民被转移，并且估计对河流下游 4.72 亿居民

的生活造成了消极影响。然而，受到大坝影响社区在抵抗时面临的却经常是极度恶劣的人权侵害。

6. 大型水电站项目不一定是为穷人增加能源供给的有效工具。相比风能、太阳能和小型水电站来说，大型水电站项目依靠的是中央电网，在向农村人口传送电能时并不能节省成本，在撒哈拉以南的非洲和喜马拉雅地区尤其如此。虽然开发商经常宣称水电产能是为了服务穷人，但大型水电站的建设往往是为了满足采矿和其他大型工业项目的需求。

7. 即使在某些情况下大型水电站是好的解决方案，利用水电站来应对环境危机也是一个费时费力的方式。大型水电站平均超支 96%，超时 44%。相比来说，风能和太阳能项目修建速度更快，而且超支平均不会超过 10%。

8. 水电已经不再是一门创新技术，近几十年来也没能取得重大的技术突破，而风能和太阳能则并非如此。气候资金的投入无法像在太阳能产业一样为水电产业产生进一步的规模经济效应，也无法鼓励新技术向发展中国家转移。

9. 风能和太阳能已经是现成的技术，财政上也更有竞争力，而且已经赶超大型水电站，能够提供新的发电能力。随着电网变得更加轻便，蓄电池的价格也越来越低，我们已经不再需要修建新的水电站来平衡可再生能源产能的不连续性。

10. 水电站项目现在占清洁能源机制(CDM)所有项目的 26%，而且在气候变化机制中得到了大量支持。支持大型水电站项目的气候资金挤占了风能、太阳能、小水电等能够为气候变化提供真正解决方案的项目，同时也营造了在真正采取气候变化应对措施假象。把修建大型水电站包括在应对气候变化的机制中掩盖了提供其他真正解决措施的需要，而这种做法是错误的。

基于以上原因，以下署名的机构和个人呼吁政府、金融机构和其他机构将大型水电站排除在应对气候变化的机制之外。一切应对气候变化和提供能源的解决措施都应当尊重当地社区的权利和生计。

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