Chapter 14
Taking the Lead:
How the Global South Could Benefit from Climate Finance, Technology Transfer, and from Adopting Stringent Climate Policies

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ABSTRACT

In this chapter, the author argues that the countries in the Global South can gain from stringent own climate policies. This is so, as in the current situation, the south tends to be dominated by the climate policies of northern countries and climate finance largely supports single projects and technology transfer that are not embedded in a broader policy framework in southern countries. Adopting own stringent policies could help to counteract this and to channel these financial means to their most beneficial use. This could help southern countries to follow an agenda that is different from the fossil fuel based development path of the north. Such a "green new deal" could be a promising economic and technological development strategy. Stringent climate policies would strengthen the southern countries in the international climate negotiations and southern countries could take the lead in the climate change mitigation debate. Technology transfer and the carbon finance sector would play a crucial role for this. Climate policy and climate finance could thus be used to set a new stage, where the south is not at a disadvantage with respect to the north.

INTRODUCTION

Technology transfer plays a crucial role in the context of climate change mitigation and adaptation and the corresponding financial programs: Article 4.5 of the United Nations Framework Convention on Climate Change (UNFCCC 1992) states that developed country Parties "shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention." Similarly, Article 4.8 of the convention calls developed country Parties to support technology transfer to developing

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countries for adaptation to the adverse effects of climate change. This emphasis on the importance of technology transfer is renewed in the Bali Action Plan from 2007, which calls for enhanced action on this (UNFCCC 2007), and in several UNFCCC documents and workshops that support project developers in this topic (e.g. UNFCCC 2006). In 2001, a UNFCCC Expert Group on Technology Transfer was established and the UNFCCC sites provide ample information on technology transfer. The convention thereby acknowledges that developing countries have more important general development goals than mitigation and adaptation (Art. 4.7): "[…] economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties." Technology transfer is also expected to be crucial for reaching those general development goals (e.g. UN 2004 on technology transfer and the Millennium Development Goals). The Intergovernmental Panel on Climate Change (IPCC) defines technology transfer "as a broad set of processes covering the flows of know-how, experience and equipment […] amongst different stakeholders such as governments, private sector entities, financial institutions, non-governmental organizations (NGOs) and research/education institutions." (IPCC 2000, p3). This is a very broad definition, but it captures how this term is used in the climate change context, in which this chapter is located.

Technology transfer needs money. Given enough financial means become available in the context of climate change mitigation and adaptation, the big challenge is to channel those to beneficial and promising projects. Technology transfer clearly can improve livelihoods in a society and it clearly can support development. But this need not necessarily be the case. Without duly accounting for the relevant country, society, cultural and regional context, technology transfer may fail (this is also acknowledged by the IPCC 2000, p3). For a concrete example of the importance to account for this context, cf. e.g. Bhat et al. (2001) on biogas plant dissemination in India. Technology transfer may fail to lead to positive consequences in various ways. (a) It can be without effect on development–then it is a missed opportunity, but no worse. (b) Or the transferred technology is not used because of not meeting consumer needs (as happened e.g. to new cooking stoves to replace inefficient fire places, cf. e.g. Barnes et al. 1993). In both these cases, there is however no further harm done. (c) Technology transfer can also have crowding out effects that may have adverse impacts (e.g. engineered crops that crowd out locally adapted varieties). (d) It can also lead to incoherent technical systems in target countries, if a specific technology transfer activity is not aligned with existing policies and infrastructure (e.g. large-scale power plant development in a policy context for a decentralized electricity sector). (e) Or it may lead to a lock-in situation (e.g. biomass energy power development, which can hinder development of sustainable agriculture heavily relying on biomass as a fertilizer, cf. e.g. Muller 2009a). Technology transfer is thus not necessarily positive or, at worst, only without any effect. It can, as in these three last cases, have adverse impacts that could also prevail on a longer time-scale.

These potential drawbacks of technology transfer are of particular relevance in climate policy. There, the industrialized countries that committed to emissions reduction under the UNFCCC(the "Annex I" countries, as they are listed in Annex I of the UNFCCC 1992) have the possibility to realize part of their reduction goals in countries not having reduction targets themselves (i.e. mainly in developing countries, the "non-Annex I" countries). Currently, the specifics of such reduction projects and corresponding technology transfer are largely determined by the needs of the Annex I countries. Furthermore, the goals of donor (i.e. Annex I) and target (i.e. non-Annex I) countries are not aligned, as the former mainly need projects for cheap emission reductions while the latter pursue general development goals such as eradication of extreme poverty and hunger. Thus, the relevant