

Low Carbon Development from a Gender Perspective

Objective of this paper

One of the tasks of GenderCC's project "Integration of Gender into Climate Change Adaptation and Low Carbon Development", funded by the International Climate Initiative of the German Environmental Ministry, is to compile and develop criteria and approaches to gender sensitive low carbon development (LCD) strategies and projects, including a check list.

This discussion paper is a first draft involving some reflections on LCD and an initial set of proposed criteria. It is the first of a series of GenderCC discussion papers on gender sensitive LCD.

Low carbon development as it stands

Although the term "Low carbon development" has been increasingly used during the last ten years, there is no internationally agreed definition to date.

The term was introduced with a view to developing countries and basically describes development strategies that are compatible with the requirements of climate change policy. In contrast to the term "mitigation" which is often understood as cutting emissions in absolute terms, LCD is mostly understood as lowering carbon intensity while achieving economic growth, i.e. decoupling emissions from growth. This does not necessarily mean that absolute emissions do not increase, but rather that the growth rate of emissions is lower than the economic growth rate. The terms LCD, Low Carbon Growth, Low Carbon Economy and Low Carbon Society are used interchangeably in the sense of "using less carbon for growth".

The term LCD doesn't say anything about the means how it is to be achieved. Is it only about technologies? And which technologies are to be deployed, energy efficiency, large or small scale renewable energy technologies, "clean" fossil fuels, or nuclear power?

So we find that there is a number of problems connected to the term LCD: it is blurred and almost as nebulous as the term "sustainable development". Moreover, LCD is also understood as a strategy which should integrate mitigation with adaptation policies and improving climate resilience, e.g. by UNDP, which adds to its fuzziness.

While sustainable development involves at least some reference to social issues, LCD can be understood as a mere techno-economic strategy. If the concept is blind for social issues, we can be sure that it is also blind for gender issues. And in fact, if we have a closer look at the LCD strategies that have been developed as yet, there is hardly any mention of gender.

As a consequence, before we establish criteria for gender sensitive LCD, we need a more clear definition of what we are talking about.

Gender sensitive LCD – a attempt for a definition

Gender sensitive low carbon development is a multi-level transformative process working towards low-carbon, climate-resilient, equitable, gender-just and inclusive societies, thereby contributing towards stabilising greenhouse gases at levels that will avoid dangerous climate change (increase of no more than 1.5°C).

Criteria for gender sensitive LCD strategies

LCD strategies need to take social and gender issues fully into consideration from the very beginning. Sometimes, a distinction is made between a traditional "climate-first" approach and a "development-first" approach, and it is claimed that the concept of LCD takes a "development-first" approach. But is development a purpose in itself or rather a means to achieve welfare for all, or maybe "buen vivir"? Given the various notions of development, the question is if we need a "liveability-first" approach, if we take a social and gender perspective.

Therefore, LCD requires a multi-dimensional approach, as opposed to the prevalent one-dimensional perspective focusing on carbon and considering other concerns only as "co-benefits". Assessments of the effects of LCD policies and measures have to take environmental, social and gender equality benefits into account, such as clean air, biodiversity conservation, health, job creation for women and men, livelihoods and liveable cities for all. Also, potential adverse effects in all these respects have to be analysed.

LCD has to respect the limits of growth, as we live on a finite planet with limited resources. Economic growth as such does not necessarily lead to improvements of the income and living conditions of the poor and disadvantaged. High-income and already some middle-income countries have exceeded the limits. Improved technologies can provide some more room for manoeuvre, but they cannot completely remove these limits. Technologies, including renewable energy installations, are always impacting the environment and the climate.

LCD should avoid risky technologies such as nuclear power and carbon capture and storage. Women are more risk aware and risk averse, and would therefore, if equally involved in decision-making, prefer low-risk technologies. LCD strategies should rather rely on safe technologies that provide co-benefits and improve resilience.

LCD should not be a pure techno-economic concept; it rather requires holistic solutions, tackling the root causes of carbon economies. Therefore, LCD has to include societal change, such as institutional settings, power relations and social status, cultural values and mindsets. LCD strategies need to be pro-poor, and also address issues such as affluence and changes of life-styles and consumption habits.

LCD strategies need to take account of the care economy, rather than only the conventional economy. The needs and socio-economic situation of care-takers, for the most part women, have to be addressed. Access to clean energy and transport services meeting the needs of care-takers should therefore be prioritised.

LCD strategies need to involve changes of physical structure towards urban form and settlements that accommodate low-carbon energy and transport services and life-styles. LCD is not only about shutting down or refurbishing large power stations, but rather about decentralised renewable energy supply, energy services using efficient technologies, the interaction between supply and demand, and improved low carbon transport infrastructure.

LCD strategies require multi-level approaches, i.e. they are not only about policies of national governments, but ought to involve regional and local governments, as these are in charge of spatial planning, urban development and design, and transport, energy, water and sanitation infrastructures that are decisive for carbon intensity and also resilience. Multi-level approaches and arrangements, providing guidance and incentives to local and regional authorities to contribute to low carbon development are therefore not an add-on, but an essential element of national and international climate policy. Moreover, in many countries, chances for gender balanced decision-making are somewhat better than at national levels, and thus chances to respond to the needs of citizens.

Fundamental Mitigation Options

This table provides an overview on the principal options for mitigation and LCD.

Gender sensitive LCD is both about WHAT is to be done, and also HOW it is done, i.e. which policy instruments and measures are deployed to introduce these options and promote their wider use.

Therefore both, the options below and also policies and measures have to be subject to gender impact assessments. How this can be done in practice will be covered in another LCD discussion paper.

Sector	Key mitigation technologies and practices
Energy supply	Improved supply and distribution efficiency; combined heat, cooling and power "Cleaner" (lower-carbon) fossil fuels for heating and electricity: from coal to oil, from oil to gas Improved fossil fuel technologies Nuclear energy Renewable heat (solar, geothermal, bioenergy) Renewable power (hydro, concentrating solar, photovoltaics, wind, geothermal, bioenergy) Carbon dioxide capture and storage (CCS) Cleaner extraction of fossil fuels, e.g. ending gas flaring
Transport	Avoid transport through land-use planning and urban design Modal shifts from road transport to public transport systems and to non-motorised transport (cycling, walking) More fuel-efficient vehicles, cleaner fuels, biofuels Downscaling of cars Fuel efficient driving
Buildings	Efficient lighting and day lighting, solar lighting Efficient electrical appliances Efficient heating and cooling devices Cleaner technology for cooking, such as improved cook stoves Improved insulation, passive house design "Intelligent" buildings Photovoltaics integrated in buildings
Industry	Durable products, material recycling and substitution More efficient end-use electrical equipment Combined heat and power or cooling and power Improved processes and process-specific technologies CCS for certain processes
Agriculture	Organic agriculture Improved crop and grazing land management to increase soil carbon storage Improved cultivation techniques and livestock and manure management Restoration of soils and degraded lands Improved fertiliser application techniques Improvements of crop yields
Forests	Forest conservation Agro-forestry management Afforestation, reforestation, forest management Harvested wood product management Tree species improvement to increase biomass productivity and carbon sequestration
Waste	Waste minimisation through re-use and recycling Waste management including separate collection Composting of and biogas from organic waste Landfill CH ₄ recovery Waste incineration with energy recovery

Table based on IPCC AR4 SYR 2007 and own information