

# Monitoring and Evaluation (M&E) of the Green New Deal (GND) and European Green Deal (EGD)

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**ABSTRACT:** Monitoring and Evaluation (M&E) is used in the assessment of the performance of projects, institutions and programmes by governments, international organizations, Non-governmental organizations (NGOs) as well as social media campaigns. The goal of M&E is to improve the current and future management of outputs, outcomes and impact. As the continuous assessment of programmes, M&E grants insights for the controlled evolution of large-scale projects' relevance, effectiveness, efficiency and impact on a grand scale and with a future-oriented outlook. This article applies an M&E lens to the United States' Green New Deal (GND) as well as its European pendant the European Green Deal (EGD). Both programs are large-scale endeavors with a long-term impact.

**KEYWORDS:** Climate Bonds, Climate Change, Economics of the Environment, Ecotax, Environmental Justice, Environmental Governance, Fiscal Policy, Green New Deal, Monetary Policy, Multiplier, Sustainability, Teaching

## Monitoring and Evaluation (M&E)

Monitoring and Evaluation (M&E) is a process in which independent evaluators use their expertise to make independent judgments of the credibility, efficiency and effectiveness of large-scale projects. Many international organizations such as the United Nations, World Bank or the IMF or regional public finance institutions engage in M&E processes to measure and estimate the effect of projects, policies and implementation efforts around the world. Monitoring thereby ensures the continuous assessment to provide all stakeholders with detailed information on the progress of the activities under scrutiny. The methods used target at determining the outputs, deliveries and schedules planned. Evaluation is the systemic and objective examination of the continuous relevance, effectiveness, efficiency and impact of activities in light of specified objectives of plans. M&E target at enhancing feedback, learning and improvement towards successful mechanisms of change. Usually, short term outcomes are evaluated and monitored in the assessment frame. Knowledge of the areas of analysis is key in the M&E focus on innovative projects. The following part grants insights into the different areas of expertise covered in the GND.

## Green New Deal (GND)

The New Deal was historically a bonds financing strategy of the United States of America between 1932 and 1939. In total, around 15 to 35 billion USD were spent on a series of development programs that funded public work projects, financial reform, and regulation efforts on economic development. U.S. President Franklin D. Roosevelt's overarching goal for the project was to relieve and reform the country so it could recover from the Great Depression.

The recently proposed Green New Deal (GND 2019) advocates using both a carbon tax and green bonds in order to stimulate economic growth. Based on the foundations of Modern Monetary Theory, the GND aims to vitalize the economy through a transition to renewable energy and sustainable growth. The GND serves as a market solution to implement global environmental governance as "the sum of the many ways individuals and institutions, public

and private, manage their common affairs” (Puaschunder 2020a). The GND thereby combines Roosevelt’s economic approach with modern ideas such as renewable energy and resource efficiency.

## Framework

The Green New Deal group operates within the framework of the United Nations Environment Programme (UNEP) that since 2008 has encouraged countries to create jobs in green industries, thus boosting the world economy and curbing climate change at the same time. Since 2019 over 600 corporations signed a letter to the United States Congress in support of climate attention in support for the reduction of greenhouse gas emissions. Change that has been advocated for includes fossil fuel extraction and subsidies, transitioning to renewables, expansion of public transport and overall emissions reductions.

Since 2019 Senator Edward Markey and Representative Alexandria Ocasio-Cortez push for transitioning the United States to use renewable energy, such as electric cars and high-speed rail systems as an extension of Obama administration plans. The GND is to improve vulnerable communities via state-sponsored employment, universal health care, increased minimum wages and preventing monopolies. A 10-year national mobilization targets at work security and working conditions by high-quality health care, affordable housing, economic security, access to clean water, air, healthy food and nature, education, clean, renewable, zero-emission energy, repairing of infrastructure, energy efficient smart power grids, upgraded living conditions, pollution elimination, clean manufacturing and positive work collaborations. Various proposals for a GND have been made internationally, for instance in Australia, Canada and Europe.

## Economic foundations

**Economic theories that back the GND include** John Maynard Keynes’ spending multiplier effect (1936), which captures the ratio of a change in national income to any autonomous change in spending – such as private investment spending, consumer spending, government spending, or spending by foreigners on the country’s exports that causes it.

Joseph Stiglitz famously advocated for the GND by saying “it is better to leave a legacy of financial debts than to hand down possibly unmanageable environmental disasters.” Also Jeffrey Sachs supports financial overspending for the sake of avoiding irreversible tipping points and environmental lock-ins (Puaschunder 2019b, 2020b). Money will always exist and is fungible, whereas environmental resources are depletable and irreplaceably destroyable.

## Implementation

**Global Environmental Governance** could provide different means for implementing the GND, ranging from formal institutions (major global conferences and treaties), legal regimes, informal arrangements, intergovernmental relationships, nongovernmental organizations, global capital markets and multinational corporations (Puaschunder 2020b).

**Fiscal policies:** The public sector and governing institutions play a central role in overcoming free-rider problems and initiated market opportunities associated with externalities like climate change. Climate change mitigation and adaptation can be financed via tax revenues (Puaschunder 2019b). Carbon tax can create fiscal space. Proposed financing tools include (long) maturity bonds – such as discussed in Sachs (2014), Orlov, Rovenskaya, Puaschunder and Semmler (2019) and Braga, Fischermann and Semmler (2020).

**Carbon Tax:** To peg emissions to tax payments appears simple and fair. Around the globe, about 14% of CO<sub>2</sub> emissions are subject to taxation. But most of these taxation efforts are only a few cents or dollars per CO<sub>2</sub> ton of emissions. Climate effects are only predicted for around 40 USD and increasingly doubling the taxation after an introductory phase successively. So far, Sweden has been quite successful with this: Since 1991 the CO<sub>2</sub> tax has been raised to 130 USD and carbon emissions dropped for about 1/4th while the economy could still grow.

**Monetary and credit policies:** The importance of monetary policy in support of climate policy is visible in inflation targeting as a proper policy. Yet, adaptation, the provision of climate disasters, and the recovery are often producing bottleneck causing higher inflation rates. So targeting the inflation rate to move down inflation rates do not seem to be the appropriate policy if one has negative shocks on the supply side.

**Insurance policies:** Some researchers stress the importance of preventive actions and of policy buffers, designed to enhance resilience to shocks. Furthermore, the ease of borrowing constraints, greater reserves, and reserve fund accumulation is suggested. Low income countries and regions have limited access to issuing climate bonds and exercise little borrowing power. Besides tax increases, risk pooling through self-insurance or some collective insurance schemes, grants from donors, and buildup of financial buffers and disaster funds for contingencies are recommended.

**Central banks:** Departing from their central focus on monetary and economic stability (e.g., legal tender & setting the interest rate to achieve market stabilization), central banks have recently gained interest in aiding on the financialization of climate change mitigation and adaptation.

**Emissions-Trading:** Around the globe, emissions trading covered around 20% of the global CO<sub>2</sub> emissions in about 40 countries of the world and over 20 cities, municipalities and provinces of the world ranging from China to the EU.

**Green Bonds:** Solar power and wind turbines, eco-friendly infrastructure and more research and development in clean energy and green technology are all investments for climate change. Addressing market changes and the financialization of climate justice are estimated to comprise of 5-7% of the contemporary world GDP, accounting for 5-6 billion USD. Green bonds could fund all these endeavors.

**Environmental pricing reform** is the process of adjusting market prices to include environmental costs and benefits. A negative externality exists where a market price omits environmental costs. Then rational (self-interested) economic decisions can lead to environmental harm, as well as to economic distortions and inefficiencies. Environmental pricing reform can be a market-based or economic instrument for environmental protection. Examples include green tax-shifting (ecotaxation), tradeable pollution permits, or the creation of markets for ecological services. “Ecological fiscal reform” differs in more narrowly dealing with fiscal (i.e. tax) policies as opposed to using non-fiscal regulations to achieve the government's environmental goals.

**Absorbing CO<sub>2</sub> and forestation:** As carbon-negative market solution CO<sub>2</sub> can be absorbed from the atmosphere. Examples of this are carbon-absorbing forests, green rooftops in cities, carbon-negative clothing through fungus-wear but also the absorption of CO<sub>2</sub> from the atmosphere by machinery and windmills as well as premia to stop deforestation. Another

ground-breaking innovation could be decentralized energy grids that are run on blockchain approaches. Thereby single households could generate energy, for instance via solar panels on the rooftop or isolated heating devices. Immediately as the energy is generated, the individual household could either use the energy or distribute energy to close neighbors in a grid. This point-to-point solution between closer distributors and decentralized energy sharing could revolutionize the dependency on a few energy providers.

**Behavioral changes:** In most recent decades, affluent people in high-income countries have defined environmental conscientiousness as luxury good. High-end consumers around the world then have proven interest in goods that do not cause CO<sub>2</sub> emissions. They travel and shop environmentally-conscientious with respect for the wider community and are investing to fund social and environmental causes in their local communities. Behavioral insight – hence the behavioral economics application onto global governance – proves in many powerful laboratory and field experiments the power of behavioral nudges and winks on consumer choices with less money incentives. Nudges, the behavioral means to change people's choices based on their emotions, status and other environmental and social conditions, have proven to be powerful and easily-implementable sources to educate and change people's behavior without direct enforcement (Puaschunder forthcoming a, b).

**Sustainable tourism** is the concept of visiting somewhere as a tourist and trying to make a positive impact on the environment, society, and economy. Tourism can involve primary transportation to the general location, local transportation, accommodations, entertainment, recreation, nourishment and shopping. It can be related to travel for leisure, business and visiting friends and relatives. There is now broad consensus that tourism development should be sustainable.

**Innovation efforts financialization:** Technological innovations are usually a result of a mix of private and public activities. The public sector can set frameworks and incentives, to support inventions through R&D and de-risk of innovation through public support and subsidies and setting incentives. Public actions – such as tax and subsidies – could enable the transition to a low carbon economy, and contributing to a faster transformation of the energy system toward a less carbon based energy provisions.

**Intergenerational conscientiousness:** In order to stabilize the climate, the current generations face high taxes and expenses. Future generations benefit from these investments for the future. With the right financialization strategy, these costs can be borne by future generations after the climate has been stabilized and is favorable for the humankind to come (Puaschunder 2018, 2019a, c). Green bonds would be able to enact this intergenerationally-harmonious solution. These financialization strategies are common in the public sector, for instance the New York water distribution is built on this bonds principle. With financial means that raised money via bonds, lakes could be built in mountains near New York. Now when water is consumed, the consumers pay off previous expenses.

**Engaging Portfolio Managers:** In an integrated economy, oil price fluctuations are causing disturbance in many industries. Portfolio and hedge fund managers strive for reducing risks to the overall portfolio, in the short and the long run. Renewable energy appears as crisis-stable market option as for being chosen in a quasi-religious act based on values and not on profit motives. Investment options based on renewable energy can reduce the risks and political dependencies on commodities associated with non-renewables.

### Future outlook

With the novel Coronavirus (COVID-19) spreading around the world from the beginning of 2020 on, calls are made that the medicine of the future should prevent diseases instead of just treating their consequences. In the novel Coronavirus crisis, prevention and general, holistic medicine determine whether COVID-19 puts patients on a severe or just mild symptom trajectory. Obesity, but also the general status of the immune system are decisive in whether the Coronavirus becomes a danger for the individual. The COVID-19 crisis is therefore an important accelerator for necessary, fundamental changes in the health system, which also results in ecological impacts as a healthy diet is usually less carbon intensive.

### Future leadership in teaching

Future leaders in the implementation of the GND will depend on a cadre of upcoming students, scientists and policy experts understanding the interaction and interdependence of economics and the environment. Longer term outcomes and impacts beyond targets but also the preventive character of environmental endeavors are challenges for classic M&E frames. Difficulties include the observability of results over time, a lack of bodies to measure grand-scale worldwide projects as well as the lack of systemic and objective examination criteria for not occurred risks as well as multiple stakeholder channels to discuss. Finding the right M&E framework to assess the success of the GND and EGD will be fundamental for determining the living conditions of this but foremost future world inhabitants.

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