

Sustainable Development Funds and HFC Projects: Nordic Efforts and Climate Initiatives

ABSTRACT

Through a consideration of issues and arguments relating to Sustainable Development, climate change, the use of re cyclable/ non recyclable products, this chapter considers merits, as well as evaluation of costs attributable to related matters on the environment. It also addresses a range of other factors which are contributory – as well as detrimental to the environment, and to economic development.

There remain serious obstacles in the way of progress in matters relating to collaborative projects on climate initiatives and sustainable development initiatives.

For this reason, platforms of communicative and innovative exchange serve as vital tools for mitigating possible communication gaps which may hinder the achievement of essential goals and objectives. This chapter further, highlights how and why global initiatives and efforts aimed at combatting the all important issue of global warming and the reduction of carbon emissions cannot be achieved without a unified approach which embraces a coordinated, cooperative system and which encompasses and requires a common framework of rules and standards.

Herein lies the vital role of the judiciary and legislature, not only in matters attributable to accountability, but also facilitating a harmonized and unified approach to the adoption and interpretation of rules - such that consistency is facilitated – and disclosure enhanced. Further, uncertainty and inconsistency is reduced where a more harmonized approach to rule application is adopted.

Key words: accountability, communication gaps, sustainable development, entrepreneurs, partnership projects

Sustainable Development Funds and HFC Projects: Nordic Efforts and Climate Initiatives

Prof Marianne Ojo

Introduction

When the Chinese government announced plans to impose a 65% tax on HFC projects and channel the funds into a “sustainable development fund”, doubts were raised as regards not only the effectiveness of achieving such a goal, but also the cost benefit effectiveness of such schemes and projects.

According to the Economist (2006:17),

- Mitigation (of global warming) is better done gradually than swiftly, because the faster it is done, the more it will cost... the economics of the subject are too uncertain for policy makers to depend heavily upon these, so in the end, it will be the politicians who decide.”

Zhu (2014:447- 466) highlights that the Chinese approach may be unique in its discriminatory tax approach on Clean Development Mechanism projects whereby the Chinese government takes 65% of the carbon credits from HFC-23 (trifluoromethane) projects, 30% from N₂O (nitrous oxide) projects, but only 2% from other types of projects. It is added that whilst “previous studies have expected that this tax has multiple effects: rent-seeking effect, a deterrent effect on the HFC-23 and N₂O projects, a channelling effect that switches the investment from HFC-23 and N₂O projects to other types of projects, and a market distortion effect,

with the positive analysis and empirical evidence, the present study shows that this tax only has rent-seeking effect, thus China's discriminative tax has been over read.”

It is certainly the case that possibilities may present themselves whereby the government's initial intentions are diverted as a result of other commitments to more pressing infrastructural or social needs. Social attitudes to climate change and environmental pollution, current government budget deficits – as well as welfare structures and systems will also determine the willingness of different governments to commit themselves to the goals of carbon offsetting and the reduction of carbon emissions – particularly where cost benefit analysis and determination hinge upon overly uncertain and unpredictable variables.

However, global initiatives and efforts aimed at combatting the all important issue of global warming and the reduction of carbon emissions cannot be achieved without a unified approach which embraces a coordinated, cooperative system and which encompasses and requires a common framework of rules, standards – as well as the commitment to abide by such rules even where it appears that cost benefit analyses appear uncertain and that costs of complying with carbon offsetting initiatives outweigh benefits to be derived therefrom.

It may appear convenient to highlight the abovementioned – given important government policy considerations which may outweigh other environmental considerations. As will be highlighted in the chapter, governments may be diverted from their initial intentions as a result of other more pressing budgetary constraints and financial commitments.

From this perspective and in this regard, governmental systems, commitments, social frameworks and benefit structures also need to be considered where vital commitments and environmental initiatives and engagements are being undertaken.

Therein lies the feasibility of whether such commitments to sustainable development funds can be met and whether HFC projects can be sustained.

Literature Review and Background to the Topic

It is argued that “countries with more generous social welfare policies are less likely to support protectionism and that one reason why opposition to offshoring in Europe is less vocal than it is in America, is that European health care systems tend to be independent of employment, whereas in America, losing your job means losing your health insurance too. Further, in a riskier

labor market, there may be a stronger case for health care to be financed by the state rather than by firms.” (The Economist 2006b:17).

According to Tsai and Jhong (2018:1), “Climate change has become a global issue that not only requires comprehensive solutions to prevent serious environmental, social, and economic impacts, economic development has been greatly affected by carbon emissions, which has resulted in greenhouse gases.¹

The impact of innovation and climate action in generating employment has also been highlighted. The following also constitute factors which are considered to be driving forces in stimulating competitiveness (Nordic Council of Ministers, Nordic Council of Ministers Secretariat, 2018:22,23):

- Digitization and high level of technological competence
- High levels of education
- Innovation and R&D
- Automation
- Political stability
- Low government debt
- Good reputation and international credibility
- High quality products
- High energy security
- Weak currency
- Customer Awareness

FACTORS BEHIND NEGATIVE DEVELOPMENT OF COMPETITIVENESS being considered to include (page 23) :

- High cost level
- Competitors with production in or employees from low-cost countries

¹ In this sense they cross reference Ding, H.; Zhao, Q.; An, Z.; Tang, O. Collaborative mechanism of a sustainable supply chain with environmental constraints and carbon caps. Int. J. Prod. Econ. 2016, 181, 191–207.

- A sense of self-satisfaction in the Nordics
- China's emergence as a dominant player on world markets

Hydro-fluoro carbon projects have been undertaken in different jurisdictions over the past decades. Even though Norway is not an EU member state, its HFC regulations are governed and subject to EU regulation (Currently No 842/2006, No 517/2014 in preparation) – “Tax and Refund scheme for HFC-gases – HFCs being defined as harmful waste in waste regulation (collection and safe destruction obligatory).”²

Further, ongoing cooperation projects with countries such as India include the following (Norwegian Environmental Agency : 2016):

- Project on incentives and regulatory approaches to assist a move towards low-GWP HFCs and natural refrigerants
- Use of CO₂ as refrigerant in refrigeration and air-conditioning in supermarkets (technology transfer, research- and industry partners from India/Norway (SINTEF)/EU, focus on high ambient temperatures)

Important factors which have been identified as “enabling factors” in facilitating Nordic goals towards the reduction of carbon and green house gas emissions, over the years, are as follows (Nordic Council of Ministers, 2018:12):³

- Legislation and policy instruments providing clear long-term framework for business (mentioned by 26 companies)
- Access to renewable energy (24)
- High levels of innovation (9)
- Cooperation between businesses and politics (6)
- Energy efficiency (5)

² See Norwegian Environment Agency “Norwegian Regulation on HFCs and Incentives on Alternatives” 2016 Presentation at ATMosphere 2016 “Natural Refrigerants – Solutions for Europe” Torgrim Asphjell, April 19, 2016

³ It is highlighted by many businesses and enterprises that “the business framework, such as regulation and policy instruments, has been an important contributor to the Nordic region’s success in emission reductions. The energy system in the Nordic countries, with a comparatively high share of renewables, is also mentioned as an enabler for low-carbon production in virtually all sectors.”

- Demand from consumers (5)
- Emission reduction targets (4)

Meanwhile, it has been reported that the French government had deferred or opted to omit a promised tax on HFCs from its proposed Finance Bill for the 2019 fiscal year – even though it was also speculated that the tax may reappear as an amendment proposal.

This should not imply a less serious attitude or stance in respect of the French government’s commitment to climate change – particularly given its efforts in facilitating and promoting the Paris Global Climate Agreement. It merely highlights the impact and uncertainty of “the economics of the subject.”

Four policy implications proposed for energy utilization and carbon emissions trading (CET), based on a study are as follows (Jianping et al: 2016, 5):⁴

- An absolute cap should be substituted for an intensity-based cap on CO₂ emissions because of the uncertainty of the sectoral output due to the rapid economic development and accelerated structural adjustment in Beijing. Using services as an example to discuss this implication, the government has been promoting services development in Beijing because of the need for economic structural adjustment and also because the direct CO₂ emissions of services are not high. However, the indirect CO₂ emissions, i.e., the pull effect on the direct CO₂ emissions of other sectors, especially sector 23 and sector 27, are very high, which is consistently neglected by us. To reduce CO₂ emissions, the services industry should decrease the dependency on electricity production and transportation in the short term - which is very difficult for an industry that depends on growth.
- Under the intensity-based cap, the emissions control coefficients should be set for the sectors according to their roles in CO₂ emissions. Currently, the emissions control coefficients are set according to the industrial classifications, including the agricultural industry, the manufacturing industry and the service industry. Under the current level of technology, there is relatively more pressure on the manufacturing sectors to reduce CO₂ emissions, which is unfair because some of them such as the mining sectors support the development of other sectors. Moreover, though the pressure on services to reduce CO₂ emissions is second to the manufacturing industry, the role of the service sectors is different.
- Auctions should be introduced into the allowance allocation for takers.

⁴ See Jianping G, Yalin L, Qun X and Xibo W “Sectoral Roles in Greenhouse Gas Emissions and Policy Implications for Energy Utilization and Carbon Emissions Trading: A Case Study of Beijing, China (2016) 5:1286 DOI 10.1186/s40064-016-2982-y

- N₂O and CH₄ emissions should be included in the CET of Beijing as most sectors played the same role in CO₂, N₂O and CH₄ emissions.

Main Issues to be Addressed

A consideration of issues and arguments relating to Sustainable Development, climate change, the use of re cyclable/ non recyclable products, merits not just an evaluation of costs attributable to related matters on the environment, but also a range of other factors which are contributory – as well as detrimental to the environment, as well as to economic development.

For example, many countries such as Denmark, have imposed a form of sugar tax on sugary drinks with the supporting argument and justification that too much sugar or that rather, overly excessive levels, are not healthy – particularly for those whom such products may be targeted, namely kids.

Naturally, there are also arguments that a balanced diet is best, and that children, given their metabolic activities and levels of physical activities, may require certain levels of sugar. Whichever way the argument goes, controlled intakes are also generally and, wisely, recommended at different times of the day.

In contrast, where matters such as water intake and recyclable bottles constitute the topic of environmental discussion, the preliminary question which may need to be addressed and presented, is the value of regular and balanced doses of water intake (daily recommended intake) – as opposed to sugar, as is beneficial to our health, as well as to the general well being of the economy. In particular, the working population who require such frequent and healthy doses by virtue of the nature of their work, most notably those who may be compelled to work long constant hours in front of an electronic facility or facilities such as computers, laptops, medical equipment, and even manual related activities.

Benefits attributable to bottled water and drinking from sources of regulated quantities include the following:

- 1) It discourages unnecessary waste of water, since water quantities are better regulated and controlled – not only because they are contained within a manageable compartment, but also by virtue of the fact that it costs money- and hence it is more valued and less likely to be wasted.

- 2) Bottled water presents a more inviting and accountable means of welfare provisions – as catered for and offered by many employers to their members of staff/employees.

In a previous firm where the author worked, it was customary to pick up bottled (and not just plastic recyclable ones) water (large glass bottles containing sparkling or natural spring water) every morning on the way to our offices – as was the case with other colleagues and employees. This not only served as a good incentive and healthy way to start the day – even though coffee machines were available, as well as a good incentive to drink regularly, particularly since we did not have to pay for the bottled water, and could drink as much as necessary – but was also essential for health purposes and by virtue of the fact that our tasks and assignments relied principally on the use of computers, laptops, smart phones, as well as other electronic devices – which implied working constant hours on the internet and which warranted regular breaks and frequent water intakes.

Moreover, the employer was well aware of the benefits of such supplies of bottled water and that such benefits far exceeded the costs of covering for an employee who was on sick leave. Further, since it is not possible to have a kitchen in every office, and being a large organization where there was just one kitchen per floor, having no bottled water, would have implied frequent clustering at the kitchen, frequent use of drinking cups, additional work for the secretaries – as well as an undue waste of time just going to get a glass of water from the kitchen. It was thus, more accountable, time saving, and convenient having those bottles on the office desks – as and when they were needed.

Further benefits attributable to bottled water and drinking from sources of regulated quantities are as follows:

- 3) It presents a sense of welfare which conveys a caring image of an employer and corporate firm which takes interest in the well-being of its employees and members of staff.
- 4) Healthy intakes of daily recommended doses of water can save the economy from unnecessary absences owing to sick leaves – hence contributing to increased economic development. Further those who do not naturally like drinking water are incentivized to take more regular and recommended daily intakes.
- 5) As previously highlighted, what is more valued or purchased with one's own funds (or costs more than the generally available source), is more likely to be appreciated and less

likely to be wasted and there may be adequate justifications for purchasing or investing in such resources or certain products – particularly where health matters are involved. Sugary drinks for instance, are to be distinguished from pure natural water for a wide range of reasons already mentioned where matters of recyclability of bottled contents are involved.

Even in certain cases where the chewing of “synthetic” gums are argued to be detrimental to the environment, some employees may require such during the performance of their work duties. Again, this hinges on, and relates to question of balance – as well as various other considerations.

Recommendations and Future Research Directions

The importance of enabling environments, coordination between actors involved in facilitating and achieving sustainable development goals and initiatives, communication – as well as accountability has been a theme which has resonated throughout this volume.

The way forward also embraces other considerations, namely the continued acknowledgement of the role of regulation as is highlighted:

“Regulation should be adapted to what companies are able to deliver and the Nordic model has helped achieve this. In the Nordic model, there is communication and understanding between businesses, policy-makers and labor organisations. All actors understand that sustainability is needed in all dimensions companies must be able to pay their workers, pay their taxes and still make a profit. When we work together we can move things forward.”

Karl-Henrik Sundström- CEO of Stora Enso

(Nordic Council of Ministers, Nordic Council of Ministers Secretariat, 2018:12)

The significance of regulation and its contribution to carbon reductions as “as an enabler for low-carbon production in virtually all sectors”, as well as the input of renewable energy as an enabling factor, is also notable across industry sectors.

As will be highlighted under the conclusive chapter of this volume, which focuses on “Women Empowerment and its Role in Sustainable Development”, collaborative platforms for entrepreneurship programs serve as invaluable means of facilitating effective exchange of ideas and innovative breakthroughs for progressive, as well as sustainable development.

As well as accentuating “The Power of Partnerships and Shared Platforms “ the importance of education as a facilitator and tool through which women can attain important roles – both in terms of shaping future legislation, ensuring accountability, amongst numerous other roles and most importantly, facilitating global peace, is emphasized.

Where women are empowered, assisted and encouraged to become the best that they can be, the potential for such qualities, as well as their pacifying and unifying characteristics can serve to achieve tremendous heights and accomplishments – also complementing and enhancing the potential of their male counterparts

However, communication problems, gaps and cultural differences continually serve to hinder progress in many areas. For this purpose, vital communication and exchange platforms are essential to facilitating the goals, visions and objectives of effective and successful collaboration – in whatever capacities these may assume – be it through project collaborations on climate change – or other capacities.

Conclusion

As will be highlighted under the conclusive chapter of this volume,

“Certain cultures are more reluctant to engage in collaborative projects because of the potential conflicts which may arise, or conflict with their customs and practices. It is quite easy to understand why collaborations may be accepted by the same individuals based on a jurisdictional viewpoint. Whilst initial perceptions may encourage collaborations, subsequent information received in respect of jurisdictional matters, may render a more reluctant approach to engage in a project. Similar customs and perspectives to life – as well as more common and familiar practices are some factors which may encourage a willingness to engage in collaborative projects – without the fear of being misunderstood, or even endangering one’s reputation.”

The impact of carbon emissions, global warming and the deteriorating impacts and effects of a failure to address these issues on climate change, namely their economic impacts on economic sustainability, have been highlighted.

Communication gaps therefore constitute a crucial matter which need to be addressed through the fostering of platforms which facilitate innovative ideas as well as mitigate such gaps.

Whilst costs are attributed to the goals of achieving lower carbon emissions, and whilst its level of cost benefit effectiveness have been questioned, costs attributable to climate inaction, as highlighted by the Nordic Council of Ministers, include its ability to hinder competitiveness, as well as lost business opportunities, reduced efficiency and weakened brands (2018:21).

Further, as highlighted by the Council of Ministers, it is imperative that common visions and sustainable development goals are developed, cooperation between countries and companies are fostered – as is the case with joint-policy schemes on energy, R&D, public-private partnerships, common standards and harmonized rules and that there is political unity across borders and common Nordic energy-market.

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