Politics

Sebastian Veit

A Contribution to Reduce Oil Consumption

A Non-Conventional Cross-Sector Strategy towards Energy Efficiency and Sustainability for Developing Countries

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PREFACE

This master's thesis attempts to provide 'food for thought' in energy politics for developing countries. It is an empirical work and combines my experiences of studies and travels in developing countries as well as my professional exposure at the World Bank in the Energy and Water Department. This thesis would not have been what it is without the contribution of some very special people whom I would like to take this opportunity to thank. My special thanks to Mr. Jamal Saghir (Director of the World Bank Energy and Water Department), who hired me in the summer 2005 in order to work on hydropower, renewable energy and the G8 climate change agenda. I also would like to express my thanks to Mrs. Dominique Lallement (Director of the World Bank Energy Strategic Management Assistance Program) and Mr. Pablo Rosenthal (GTZ secondman to the World Bank Energy and Water department). They both guided the development of my proposal with their extensive professional expertise. I am very thankful for their input, since my goal was to produce a strong and innovative paper that could provide the basis of an ongoing project beyond the peripheries of the Global Studies Program.

Please note that the author of this paper is visually challenged. I therefore had to rely on books, studies and articles that were available in an accessible format. However, this by no means limits the findings of the paper. Special emphasis is given to the research of new energy strategies that are applicable in a developing country context. It seemed to me that the potential for the reduction of oil consumption is greater when taking different viewpoints into consideration. The motivation for this approach was to develop partially new strategies whilst not beating the old drum for renewable energies. However, I fully support the utilization of renewable energy in both industrialized as well as developing countries as an environmentally friendly source that fuels the growth of our economies.

ABSTRACT

This study aims to establish a general dialogue on strategies for developing countries that contribute to reduce oil consumption. The innovative aspect is that the proposed strategies will not rely on conventional methods such as coal, gas, nuclear or renewable energy. Further, the strategy must take the socio-economic circumstances of developing countries into consideration. Costly technologies are thus not feasible. Hence, the research points to a cross-sector analysis, which takes the focus beyond the energy sector. Potentials to contribute to a reduction in the oil consumption are identified in the education, agriculture, urban planning and transportation sector. In the case of the latter, data for engine idling was produced for the purpose of this study. This significant component had apparently not been taken into consideration before, as various experts confirmed.

The paper is guided by the framework of policy analysis, which allows the development of a general strategy that can be utilized to enter into a policy dialogue on the national level. Although various detailed examples are provided through the course of this paper, the goal is to construct a generally applicable strategy.

"To waste, to destroy, our natural resources, to skin and exhaust the land instead of using it so as to increase its usefulness, will result in undermining in the days of our children the very prosperity which we ought by right to hand down to them."

Franklin Roosevelt, (1932)

I. CHAPTER: DEFINING THE ISSUE

1 Introduction

Unlike in industrialized countries, the recent rise in oil prices has had a severely negative impact on the economies of oil-importing developing countries[1]. The Economist reports that: "by the first half of 2005 the average price of oil had risen by 72 % relative to the price in 2003-from US$28.8 to US$49.5 a barrel".

Conventional strategies and models to reduce oil dependence, which have been implemented in the powerful 'northern' economies, are often not feasible for developing countries due to the high technological cost or are simply inapplicable for other reasons. For example, only 16 % of Africa's roads are paved[2], and, with some exceptions, the gravel roads are not suitable for fast-moving vehicles. Thus, speed limits designed to conserve gasoline are less effective than those in the developed countries.

Furthermore, it is safe to assume that oil reserves will deplete and that world market prices will consequently tend to climb rather than decline in the next decade. This prediction will be given credence in Chapter III. The overall aim of this paper is to demonstrate that cross-sector strategies to reduce oil consumption in developing countries must take the socio-economic circumstances of these countries into account if they are to be effective.

To this end, the variables and strategies that could contribute to a reduction of overall oil consumption, if incorporated into national policies, will be identified. The emphasis here will be on demand responses as important countermeasures to supply constraints. However, some approaches, such as fuel-rationing with its harmful economic impacts, and political and economic alliances that offer oil on

[1] The World Bank reports slower growth forecast for developing countries. "The Bank's annual Global Economic Prospects Report for 2006 forecasts that economic growth in developing countries will slow to 5.9 % this year, and to 5.7 % in 2006, down from 6.8 % in 2004. Economic growth in high-income economies is also expected to slow from 3.1 % growth in 2004 to around 2.5 % in 2005 and 2006. Burns says high oil prices were one factor in dampening the global expansion". (World Bank Development News, 2005)

[2] "Only 16 % of the roads are paved, transport costs are the highest in the world. Infrastructure development in Africa is lagging behind the rest of the world in terms of quantity, quality, cost and equality of access." (World Development Report 2006: Equity and Development)

favorable conditions for strategic reasons to ‘friendly or willing’ states, are not recommended as effective strategies due to their negative repercussions. Resources are often acquired by national oil companies, but where oil fields are placed on the open-market, there can be fierce competition over access, as the Economist reported in January (2006): “China National Offshore Oil Corporation announced its biggest-ever overseas acquisition by agreeing to take a 45% stake in an oil and gas field in the Nigerian delta for $2.3 billion. India's Oil & Natural Gas Corporation last month won the bid to operate in the Akpo field, but the deal was rejected by the Indian government despite fierce competition with the Chinese over new energy sources.”

Further excluded from consideration in this paper are the oil-exporting countries, since they clearly benefit from higher oil prices (increased export revenues), and thus have less incentive to reduce national oil consumption. With reference to the situation of oil-producing countries, Gordon (1993) notes that: “Geography is an important way in which nations’ energy problems are differentiated. In worldwide terms, whether a country has a field is of crucial importance. There is no energy crisis in Saudi Arabia, Iran or Venezuela.” However, even in oil-producing countries shortages can occur in some cases. For instance, Iraq frequently runs out of petroleum, which is highly subsidized. Gangs and mafia-like operations highjack fuel transports, take them to neighboring countries and sell off the fuel. Thus, the proposed strategy does not primarily address oil-producing countries due to the lack of incentive for the reduction in consumption of the product they have in abundance: natural oil.

Regulatory proposals[3], such as those that have been put forward by the new President of the African Development Bank (AFDB), Mr. Donald Kaberuka , will also not be considered. They are of a regulatory nature, which is not a focus of this paper.

3 In an interview with The Financial Times, the new president of AFDB indicated that his proposal to urge oil companies to soften the import blow to Africa would be discussed when African and donor-nation finance ministers meet at the bank's invitation in Tunis. His proposal is based on the following idea: “Part of oil companies' windfall profits should be used to cushion the impact of high oil import bills on African economies. Donald Kaberuka, who took over the post in September, said the short-term effects of high oil prices could be mitigated through windfall taxes in donor countries where companies were based, or a voluntary arrangement between oil majors” (Financial Times, 2005).