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**Foreign Direct Investment and Sustainable Development: A  
Potential Partnership for Venezuela?**

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## Abstract

This paper addresses the question: “How can Foreign Direct Investment play a critical role in the sustainable development of Venezuela?” The debate over FDI remains contentious, as does that surrounding the vociferous Venezuelan leader, Hugo Chavez and his policies. This paper draws the two together to explore the potential for sustainable development in Venezuela, contributing to the existing limited research combining FDI and sustainable development. It analyses the current primary-resource-based development model in Venezuela and the associated risks and threats within the context of sustainable development. The impact of FDI and transnational corporations (TNCs) are critically assessed, with emphasis on environmental factors and concerns, investigating the possibility of an alternative development model to encourage sustainable development. The paper develops a basis for a new development framework for Venezuela.

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**Keywords:** Foreign direct investment, sustainable development, transnational corporations, primary resource economy

## Introduction

This paper sets forth an analysis of the potential for sustainable development in contemporary Venezuela. A mini-stock take commences with a synthesis of the existing literature linking Foreign Direct Investment (FDI) and sustainable development (SD). The stocktake reveals a lacuna in the case of Venezuela for FDI and SD. Part II presents a picture of contemporary Venezuela through the lens of its economy and resulting problems. Existing structures in place to sustain development for Venezuela, are enumerated and the method reveals that ultimately the present structures are unsustainable. Due to the lack of sustainability, the findings indicate that Venezuela must shift from its heavy reliance on oil. Part III provides a number of reflections as to how FDI might be fused with suggested policies to contribute positively to sustainable development. The reflections consider the economy, social development as well as environmental factors.

## **Part I – Synthesis of the contemporary literature linking Foreign Direct Investment and Sustainable Development**

### ***FDI: Beyond Theory***

When Hymer (1960) wrote his PhD dissertation he may not have foreseen the significance of his work. He is often credited as having written the seminal work for FDI theory. He noted that FDI was different from other types of investment. As a corollary, other works, including Dunning (1970) have focused research on what it is FDI advances. The literature has evolved in close correlation with the rise of TNCs (transnational corporations).

During the 1990s, FDI flows to developing countries accelerated, overtaking other types of international private capital flows (ODI, 1997). The transition in investment flows occurred concomitantly with a sharp decline of development aid, especially ODA (Official Development Assistance). Thus, the shift from ODA of the 1960s and 1970s in investment trends to the surge of FDI in the 1990s correlated closely to a shift in investment policies and agreements. The policies changed from the controlling and limiting of TNCs, to the lowering of trade barriers and investment liberalisation (Chudnosky & Lopez, 1999; Mabey & McNally, 1999). Since then, much FDI research has ensued, mostly focusing on economic growth and development (Graham, 1995; Hanson, 2001; Lim, 2001; Moran, 1998; Zarsky, 2005).

### ***Attracting Foreign Direct Investment: For investors and recipients***

Attracting FDI became a dominant theme both in policy and practice. Multilateral institutions became consumed by the notion of trade and investment liberalization following the 1980s debt crisis. Notably, UNCTAD and the OECD published numerous papers advocating attracting FDI for development (OECD, 2001; UNCTAD, 2004). A more recent report by IIED (2005) was particularly concerned with increasing FDI inflows into South America from the European Union (being the largest source of global FDI). The main factors understood to attract/ promote FDI into South America are posited as: national policy in relation to FDI; the regulations and limitations existing to FDI flows; and the scope of the notion of sustainable FDI (Dufey, 2005). More generally, the crux of successful FDI is put forward in the literature as the ‘investment climate’ - creating an enabling one has become a focus for many within the context of FDI (Dufey, 2004; Gallagher & Zarsky, 2003; Gallagher, 2005; IISD, 2002).

However, attracting FDI alone is not guaranteed to result in sustained development (Mabey & McNally, 1999; Zarsky & Gallagher, 2003). Thus, increased volumes of FDI, for FDI-led development have evolved into the more recent perspective: that the quality of FDI is what

matters (Chudnovsky & Lopez, 1999, p. 2; Dufey, 2004). Nonetheless, it is argued by Dufey (2004) that attracting quality FDI or large volumes is not a strategy in itself for sustainable development. This is a very important point and one which others appear to miss.

The IIED report (2005) and other papers (Gardiner, 2002; OECD, 2001, UNCTAD, 2004) are typical of the FDI-flow pattern in the existing literature, being: developed to developing country FDI flows. The majority of global FDI flows between the developed countries. However, there is a trend of increasing flows of FDI between developing countries which is generally not addressed in the available literature. For Venezuela, these patterns should be considered with regard to the Venezuelan president. Hugo Chavez' anti-neoliberal stance and US-foreign relations suggests that, rather than turn to the West for investment, Venezuela may prefer to deal with China and India for assistance.

## FDI flows and Development

### ***Economic Impacts***

Generally, the literature links technology spill-overs and increased production to the presence of FDI (OECD, 2001). Thus, the work of Aitken & Harrison (1999) is important to note, where they examined the impacts of FDI on productivity and technology diffusion. Based on evidence from Venezuela, they argued that domestic firms do not always benefit and that there is no empirical support for technology spill-overs to domestic plants. Their work is also unique in that it is a quantitative study and the only paper linking Venezuela and FDI readily available. Zarsky & Gallagher (2003), authors of a WWF Analytical Paper summarise a number of studies well with mixed findings, some did see economic growth and others did not. The FDI-economic debate remains ongoing.

### ***Environmental Impacts***

Chudnovsky & Lopez (1999) state that the findings are generally inconclusive as to whether the activities of TNCs result in environmentally friendly technology diffusion. Although they pay special attention to Latin America, they discuss the aluminum sector in Brazil, US TNC Dupont in Mexico, Chilean paper as well as the mining industry; there is no mention of Venezuela. The authors employ a format common to other studies on positive environmental impacts: do they? don't they? conclusions. However, in addition, they add some valuable points for policy research agendas. They make an important delineation between TNC investment strategies as market, efficiency, natural-resource and asset seeking.<sup>1</sup> The authors

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<sup>1</sup> Dunning (1994) can be credited with originally writing about this differentiation

argue that understanding these strategies is fundamental to FDI as a vehicle for environmentally technology transfer.

An important distinction must be made between the dominance of efficiency and market seeking FDI in the literature on Latin America and the realities in Venezuela. Dufey (2004, p. 5), as an exemplar of the majority, notes that EU FDI mainly flows to the tertiary sector to further underscore the close association with the efficiency-seeking strategy of TNCs. The remaining majority of works concentrate on market-seeking investments in Brazil (dos Santos Rocha & de Almeida, 2007) and Argentina (Zarsky, 2005). However in the case of Venezuela, historically, most FDI flows have entered the primary sector and may be considered natural-resource seeking.

The view that TNCs can lead by example in best-practices, resulting in environmentally-friendly technology diffusion abounds in the literature (Dufey, 2004; Gallagher, 2005; Mabey & McNally, 1999; OECD, 2001; UNCTAD, 2004). This contrasts with previously discussed papers that found technology diffusion did not occur into domestic firms (Aitken & Harrison, 1999; IIED, 2005). The potential for positive impacts appear to rest on a number of differing factors: the ‘greening’ of the supply chain; environmental policy and environmental transparency (Chudnovsky & Lopez, 1999).

The OECD (2001) Report posited that FDI was actually conducive to sustainable development. It argued that FDI inflows can yield augmented production and technology diffusion. It is interesting to note that liberalisation of trade and investment is championed. FDI is only briefly acknowledged to increase pollution, damage protected land and accelerate urbanisation. However, investment liberalisation plus strong regulatory frameworks are listed as preventive measures to mitigate negative impacts.

A valid point is the probable shift for policy coherence and environmental regulation from depending solely on economic growth in the foreseeable future to a consideration for environmental issues<sup>2</sup>. Essentially, the OECD (2001) report<sup>3</sup> takes a pro-TNC stance as does the UNCTAD report (2004) that TNCs and their environmental activities are to be considered altruistic rather than profit-driven.

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<sup>2</sup> Recent scientific publications including IPCC (2007) report can be attributed to this probable shift in focus.

<sup>3</sup> Unlike other literature reviewed here, the OECD report is unbalanced. It is worth noting that the OECD paper was prepared by a senior OECD economist for an OECD conference, hence, it is not surprising that the content is rather skewed in the OECD’s favour.

Social reporting frameworks (termed collectively as corporate standards and corporate social responsibility, or 'CSR') emerge as another theme throughout the literature. The OECD (2001) report ends with an exaltation of the OECD's creation of such, including 'OECD Principles of Corporate Governance' and the 'OECD Guidelines for Multinational Enterprises' asserting they have resulted in positive environmental impacts of TNC activity through FDI. In other works (Zarsky & Gallagher, 2003; Mabey & McNally, 1999) these frameworks are also seen as significant.

In contrast to the OECD (2001) and UNCTAD (2004) reports, the two papers prepared for the WWF (1999, 2003) are motivated by concern for the environment and this is reflected in their analyses. Both papers argue that despite FDI having potential for positive environmental impacts, there is evidence of damaging impacts. In some cases, host countries are evidenced as offering incentives in contradiction to environmental protection (IIED, 2003). Two theses are drawn upon, the 'Pollution Haven Thesis' and the 'Chilling Effect' (Mabey & McNally, 1999). The pollution haven thesis has been proven in a number of cases, including Brazil (the tanning industry) and North Africa (phosphate manufacturing) (McNally, 2000). The chilling effect theorises that environmental regulations are lax to attract investment. This has been evidenced in a number of countries, including the case of Mexico (Gallagher, 2003). These theses have been dismissed in other works as lacking in empirical evidence (OECD, 2001; UNCTAD, 2004).

Gallagher (2005) dedicates his paper to the case of Mexico and reveals that FDI in Mexico has worsened environmental performance. In the second WWF paper (2003), Mexico is used to illustrate the mixed results of FDI's environmental impacts. The problem with this paper is that the four case studies used cover three continents and two sectors, the scope is too broad. This is the downfall on other papers (Zarsky, 2005) linking FDI and development. To establish conclusions from such a vast scope poses challenging. Thus, it appears that a different approach is needed for conclusive findings. Zarsky (2005) makes the excellent point that policies shaped to local capacities and conditions have the greatest chance to succeed.

It is apparent that findings are very mixed in relation to FDI and its role in environmental protection. Furthermore, there is not a published paper discussing FDI's environmental impacts in the case of Venezuela, highlighting a research gap.

## ***Social Impacts***

The strength of this OECD report is in its discussion of the three facets of sustainable development. It includes social development, as the majority of literature discussed does not. Noting of the social facet of sustainable development is limited in the existing literature surrounding FDI to five works (dos Santos Rocha & de Almeida, 2007; Gallagher, 2005; Gardiner, 2000; Mabey & McNally, 1999; OECD, 2001). Emphasis is placed on the labour market and distribution of wealth in the OECD report, contesting that investment liberalisation and FDI-led growth results in a reduction of inequality (2001, p. 6). Labour and wages are the staple of analysis offered in the other four papers discussing social development, with the exception of Mabey & McNally (1999) and Gallagher (2003) who expand the social impacts of FDI to poverty and inequality.

Perhaps it is surprising that of the fourteen pieces of literature surveyed; just four discussed the social impacts of FDI.

Gardiner (2002) also has a section discussing the impacts of FDI on social development arguing that the advantages may only be experienced by a small percentage of society, i.e. where those educated and trained to participate in the chosen sector for investment tend to be wealthy elites. FDI impacts on social development are lacking and limited to employment and wages. It is suggested that for the FDI-sustainable development relationship to be fully understood, greater investigation into social development is imperative.

## ***Sustainable Development***

The World Commission on Environment and Development (WCED) defines sustainable development as that which “meets the needs of the present without compromising the ability of future generations to meet their needs” (1987). The concept encompasses economic, environmental and social progress. The multifaceted foundation of the term is often ignored in favour of an exclusive focus on economic growth in the existing literature.

A number of the works highlight concern for restrictions and limitations in FDI for sustainable development. Dufey (2004), Gardiner (2002) and Gallagher & Zarsky (2003) place special emphasis on the debilitating role of international agreements and contracts, arguing that they are formulated in favour of the investors and companies. In a second IIED paper (2005), this is taken a step further providing specific case studies highlighting a number of clandestine terms within the contracts have resulted in environmental degradation. When contractual disputes erupt, it is favoured to attend a private international tribunal, not national,

public courts. Hence, it is apparent that foreign investment contracts often lack transparency (IISD, 2005).

According to many authors, including Gallagher & Zarsky (2003) and Zarsky (2005) enhancing transparency, corporate standards and reporting are vital if FDI is to result in sustainable development. They note that for countries creating an enabling environment for FDI, often comes a high environmental cost, arguing that the creation of an 'enabling environment for ecologically sound economic and social development' is crucial.

Tied into the theme of corporate transparency is the potential role of civil society. Gardiner (2002) sets out a practical outline of desirable roles and responsibilities that actors should take on board to yield sustainable development. She argues that NGOs and civil society groups can aid in addressing the links between FDI, welfare, inequality, environment, and poverty. In addition, they can play a part in raising awareness of companies' investment standards and policies (Gardiner, 2002).

Zarsky (2005) should be commended for her observation that formulating governance on the 'one size fits all' model favoured by the multilateral international financial institutions (IFIs) will not yield sustainable development.

## **Part II - Contemporary Venezuela: A Primary Resource Economy**

Venezuela's economy is driven by petroleum. This resource is the single engine of growth, making up 25% of GDP, close to 50 % of government revenue and more than 80% export revenue. The majority of the population are young and highly urbanised (EIA, 2008; EIU, 2007a).

Since the election of Hugo Chavez as president in 2000, the economy has experienced a number of shifts. These include a wave of nationalisation of certain sectors, (including petroleum, telecommunication and electricity) and huge reforms that have been implemented throughout the country. Venezuela is currently experiencing an oil boom, fueled by high oil prices, mass social programmes alleviating poverty, including both education and universal health-care have been executed. Their emergence can be wholly attributed to oil windfalls, which paradoxically can be attributed to the high levels of poverty and inequality existent in Venezuela.

With recent reports of Venezuela's proven oil reserves reaching 100/bbl (billion barrels) it appears that the deepening dependence on oil as the engine of the economy is ongoing. The Venezuelan government has stated that it expects proven reserves of crude oil to reach 200/bbl following the Orinoco Magna Reserve Project. If the reserves are certified, Venezuela will become the world's largest possessor of hydro-carbons (Walter, 2007).

As part of the move towards 'Socialism for the 21<sup>st</sup> Century', Chavez' announcement of nationalisation of sectors in 2006 was carried through in early 2007. This impacted FDI inflows to the country as the bulk of investment had been into the primary sector. Whilst FDI inflows were increased to the majority of countries in South America during this period, there was a sharp decline for Venezuela into negative flows (WIR, 2007).

The dependence on oil yields complications. The 'Paradox of Plenty', the notion developed by Terry Lyn Karl (1997) afflicting countries as a result of being rich in natural resources. Her argument, as she applies it to the case of Venezuela is that oil rents have altered the economic, social and political apparatuses of the weak state, resulting in tremendous constraints to transformation (read development). These constraints have thus trapped Venezuela into the initial route of rentier-led development. Venezuela is exemplar of Karl's notion; however, it can be applied to other resource-rich states such as Indonesia, Nigeria, and Norway. All of which are rich in natural resources yet have paradoxically experience negative effects.

In addition there is the associated 'resource curse' (Auty, 1993), a political phenomenon whereby petroleum reliance transforms states into 'honey pots' an analogy which emphasizes the pillaging by all involved actors (Karl, 2007, p. 256).

Furthermore, Venezuela suffers from the 'Dutch Disease'. It is an economic phenomenon, whereby upon the discovery of natural resources performance of other sectors goes into sharp decline, as all efforts are shifted to the natural resource. Moreover, industrialisation is delayed. This was the case in Norway during the 1970s upon the discovery of natural gas. It has also been the experience of Venezuela since the 1940s, following the 1920s discovery of petroleum (Humphreys et al., 2007, p. 5).

Venezuela's agriculture sector collapsed following the shift from major agriculture exporter to petroleum exporter in the 1920s, and mass rural-urban migration of peasants leaving agricultural work for petroleum based work. Non-oil exports also experienced demise for the same reason (Karl, 1997, p. 82).

Being reliant on one resource is problematic, being dependent on *petroleum* exacerbates the situation. Karl's definition of the 'petro-state' elucidates that economies reliant on petroleum have certain characteristics; Venezuela is a classic example, composed of the following:

- capital intensity
- resource depletion
- generation of rents i.e. oil revenue-led development
- rents accruing directly to the government (Karl, 1997).

The associated problems with the petro-state are: uneven growth, boom-bust cycles, political instability, high levels of inequality, poverty and unemployment and the increased susceptibility to conflict/civil war. Each can be applied to Venezuela (Karl, 1997, 2007, p.257).

Venezuela's highly subsidised domestic petroleum is reputedly the world's cheapest for consumers. Interestingly, Venezuelan citizens see cheap petrol as their right, a feeling embedded deep in their culture (Carroll, 2008, p. 29). In general, the Venezuelan population is not concerned with the environmental impacts of oil, paramount is maintaining the cheapest consumption price. These attitudes are problematic for policy makers and environmentally-minded officials with regard to the populist measure of subsidising petroleum. A decrease will most likely result in protest, civil unrest and possibly revolt. Hugo Chavez' solution it seems has been to double the tax on oil companies remaining in the oil rich Orinoco belt region from 16.6 percent to 33.3 per cent (Mortishead, 2006). This is a great leap from the 16.6 per cent level (a rate mirroring previous levels) which was the increment announced by the Chavez administration in 2004 from the initial 1% agreed by the previous administration to attract foreign investment (Bruce, 2004).

Despite huge oil revenue and increased government spending under the present government, poverty has not yet been eradicated in Venezuela.

This paper accepts that climate change is a serious problem, needing attention. It is worthy of note that the series of International Panel on Climate Change (IPCC) reports published in 2007 stated that the problem of global warming is real, it is urgent and it can be attributed to human activity (IPCC, 2007). The IPCC reports (2007) and the UN Climate Change Conference (December 2007) are two high level agents publicising the disastrous consequences of climate change yielded mainly through fossil fuel consumption and need for reduction in oil consumption and carbon emissions to minimize effects such as increased flooding, augmented droughts and acidic seas amongst the problems. The 'Bali Roadmap' the

result of a collaboration of negotiations is indicative of mandatory restrictions that are likely to come as consequences of climate change worsen. It sets 2009 as the deadline for negotiations (IPCC, 2007; The Economist, 2007)

Whilst this paper is not concerned with the exact calculation of the decline of oil in Venezuela, it accepts as given that oil production will slow as exploiting reserves becomes less efficient. Traditionally, Venezuela's heavy oil was excluded from recorded proven oil reserves as it is more expensive to extract. However, with the ever increasing global oil prices, this is no longer such an obstacle and proven oil reserves are expanding. Coincidentally, simultaneous with Chavez' first term election in 1999, oil prices have increased year on year from around \$20 a barrel to reaching an all time high of over \$100 a barrel in February 2008 and still increasing (Jones, 2006). With the recent IPCC report (2007) amongst others warning of the impending environmental crisis (Meacher, 2000) the concern must shift to alternatives to oil to avoid catastrophe. Using the poignant quote from Saudi ex-oil minister, Sheik Yamani, "The Stone Age didn't come to an end for the lack of stones, and the oil age won't either" (cited in BBC News) encapsulates the point.

### ***Current Venezuelan policies enhancing sustainable development***

In terms of sustainable development, Hugo Chavez has been keen to promote the notion of 'endogenous growth' within his agenda, in line with his anti-imperialist rhetoric. Thus, the creation of 'Nuclei for Endogenous Development' (Núcleos de Desarrollo Endógeno, NUDE) in 2001, aims for development to happen from within. This is to occur through a community-participatory approach with the creation of specific communities (hubs) created for this purpose. At March 2005, there were 149 such community hubs operating. Endogenous development as defined by the Chavez administration is applicable to both individual citizens and the state in similar ways. For the individual within the community, they are the driver for local development, they bring it about. At the national level, the key difference is that the government can provide financial support for development projects and implement educational programmes, thus, there is a degree of intervention (Wilpert, 2007, p. 80). The nuclei have not been without problems. In 2005 there was upset within one community hub following external contractors being commissioned to build foundations of infrastructure within the hub (Fox, 2006). This raises questions over the fundamental concept, if community-led projects are being substituted by external business for development, can

development really occur from within? It has not yet been specified the extent this community-led development approach will yield sustained economic development.

The government has also established a number of *misiones* which cover amongst other issues, literacy and healthcare. For the first time in Venezuelan history, there is close to 100% literacy and every citizen has access to a doctor. Such programmes are seen major accomplishments of the Chavez government. However, they are not funded by the central government but by PdVSA (PdVSA, 2008).

Whilst the government (with the financial input of PdVSA) has been generally successful in addressing the social facet of sustainable development, and to a lesser extent economic sustainability,

### ***Current Venezuelan policies hindering sustainable development***

The government has spoken of diversifying the economy. This solution to the impending economic stagnation is not a new policy for a Venezuelan administration, nonetheless it appears to be proving difficult to achieve. There have not been any significant changes in the composition of GDP for Venezuela since Chavez was elected to power.

Despite the warnings of the boom-bust cycle that petro-states tend to follow and Venezuela has historically experienced, the Chavez government does not appear to be making provisions for a potential bust. The central bank reserves have not increased significantly despite an influx of oil revenue (ECLAC, 2007). Despite the abundance of oil revenue being used for increased government spending on social development, the Chavez government does not appear to be saving a proportion of the oil revenue as a safety-net for the future, the goal of establishing a central stabilization fund has however fallen short (Wilpert, 2007).

Oil rents have been used for domestic oil subsidies since the 1940s. However, with the Chavez administration's decision to nationalise parts of the Orinoco oil fields in 2006, followed through in 2007 (Caton, 2007) came implications for the bountiful subsidies and thus, development. Until this time oil companies including Shell and Exxon Mobil (Exxon hereafter) had been allowed access to the oil fields in exchange for taxation by the Venezuelan state. Following nationalisation, the Venezuelan state no longer has the same capacity of taxing the transnational oil companies. With the absence of transnational oil companies Chevron, Exxon, Conoco Philips, Statoil and BP in the oil rich Orinoco region, to

tax, it is likely that subsidies may decrease. In addition, as the end of cheap oil continues, subsidies will be unsustainable which has implications for the Venezuelan people.

The social development projects and programmes have all been funded by oil revenue. PdVSA is the director of NUDE. They have invested \$US3.1 bn into the social development of Venezuela through implementation of misiones (PVSA, 2008).

The demise of Venezuelan agriculture has led to phases of food insecurity. Venezuela recurrently experiences severe food shortages, the most recent during Chavez' third term. The president had enforced stringent fixed prices on food staples including beans, coffee, powdered milk and sugar to counter inflation in an attempt to protect the poor. However, inflation has rocketed to 78% accumulated for the period 2003-2007 and despite oil revenue being plentiful, food is not (Carroll, 2007; Obiko Pearson, 2007; Morsbach, 2006). Under the Chavez government although diversification of oil production has been planned, agricultural production has not been greatly diversified and imports still make up 70% of Venezuela's food. According to the UN's Food and Agriculture Organisation, in Venezuela under 30% of its arable land is utilized to its maximum potential (FAO, 2008). For food security to be achieved as well as sustainable development, existing food production must be stabilized. Whilst there have been extensive land reforms since Chavez came to power, to redistribute land to the poor. Cooperatives on the plots with the aim of food production were promoted and financed, however, the objectives have not been actualized with many being left with land which is of poor quality producing little or no yields. The government's aim was to raise the percentage of agriculture from 6% to 12% of GNP by 2007, which was not achieved (Chavez, 2002). For this type of agricultural reform to take place demographic changes must take place. The population is highly urbanized and thus for migration to rural, food security should be enough of an incentive. However, if not some sort of incentive could be considered by the government.

Oil-led development has resulted in deforestation in Venezuela. From 1982 – 1995 Venezuela's rainforest diminished at the rate of approximately 1% per year. Ironically, Misión Arbol established to combat deforestation is as with all the misiones, is funded by PdVSA (Chavez, 2006; Global Forest Watch, 2008).

Lack of environmental policy by the Chavez regime can be linked to their heavy reliance on oil. For example, the right to cheap petrol is deeply embedded in the culture and so the

consideration of making the transition to cleaner energy is not on the majority of Venezuelans' minds and thus, not in the government's interest if they want to maintain power.

In terms of pollution, the vast number of cars in Venezuela significantly contributes to the country's CO<sub>2</sub> emissions.

The environmental implications for the future of oil extraction look bleak. Recently, Shell and Exxon have been developing oil sands (also referred to as tar sands) in Canada (lakes composed of water, sand and oil) as a strategy for oil extraction. Venezuela, similarly has untapped oil sands (Barbajosa, 2008; Mortishead, 2005).

Whilst it is acknowledged by scientists and academics alike that the dawn of a post fossil-fuel era is imminent, it appears that the Venezuelan government is in denial by not significantly changing policy, despite Chavez openly announcing that we are at the end of cheap oil consumption. For sustainable development to be achieved, it must face up to the truth.

### **Part III - Reflections on how FDI can work for sustainable development in Venezuela**

Below are a number of suggestions on achieving sustainable development with the assistance of FDI in Venezuela. It is important to note that it is far from an exhaustive list and whilst to some it may seem radical, the objective is to draw attention to the need of urgent reform.

#### ***Economically***

Oil is not sustainable and thus, it is logical for an economy so heavily reliant on the depleting resource to make changes preventing economic stagnation. The key for Venezuela is diversification of the economy which has thus far, proved difficult.

#### **Agriculture**

It is suggested that agriculture be reestablishes based partly on the Cuban model. In the Cuban case food security was achieved by developing self-sustaining agriculture on a mass scale. With the block on imports from US, including previously used chemical fertilizers, Cuba turned to an organic approach. Green manure and organic fertilizers became the norm and as a result yields increased up to 6-fold on pre-organic measures. Foreign direct investment would not be of great help in this approach. However, foreign investment could play a limited role in terms of agricultural training programmes.

Historically Venezuela was a big exporter of coffee and today still produces. However, due to high domestic consumption, Venezuela has stopped coffee exports. The once thriving Venezuelan coffee industry should be reestablished. The Venezuelan coffee industry although currently has stopped exports, if foreign investment came in, there would be greater capacity to produce. It is crucial that a fair price be given for the coffee for sustainability. In terms of domestic consumption, the used coffee grounds could be put on the soil to enhance nutrition

## **Energy**

In addition to petroleum, Venezuela also possesses the ninth largest quantities of gas reserves globally, estimated at 148 trn cu ft. Natural gas lends itself to cleaner production and thus, has positive implications for environmental concerns including climate change. It is however, like oil an exhaustible source and ergo, is not the solution for sustainable development. However, Venezuela could go transfer from to natural gas from heavy-oil as part of the imperative transition to cleaner and renewable technologies. Although Venezuela's natural gas exploration is in early stages, the possibilities look positive. For investors, it is suggested that China and India are approached as they are leaders in terms of energy efficiency.

The recent discovery by Japanese researchers changing the main component of natural gas, methane to methanol at a relatively low cost into traditional hydrogen fuel-cells to create electricity could be a viable alternative to petroleum. Converting methane to methanol is not a new discovery, it has not been widely used however, as the process was expensive and not producing carbon during the reaction was difficult. The proposed technology has strong potential to reduce carbon emissions as well as gas flaring. (Dicks, 1996; Gross, 2008).

## **Communications**

Whilst internet usage has increased in Venezuela of late, the actual ownership of PCs is low (EIU, 2007a). This is an area which could have potential for FDI. If companies such as Hewlett Packard and Dell (the world's two largest PC manufacturers) caution must be taken with regard to the amount of control such companies may wield.

## ***Environmentally***

The problem of pollution from cars in Venezuela could be reduced by implementing a similar scheme to the Paris council run 'Velib', whereby free bikes are provided. Thousands of bikes have been placed around the city (securely attached to racks); the same tickets that are used

for other means of public transport are used to activate the bikes. The bikes can be returned to any rack in the city (Kirby, 2007). With the majority of the population being younger, it could be a viable scheme for Venezuela. For the production of bikes, foreign direct investment from bike-producing countries, Taiwan and Indonesia could be an option.

An important end note regarding the possible relationship of FDI and sustainable development in Venezuela: Whilst this paper is limited in scope for reasons of brevity in providing a full analysis of the risks and benefits of FDI in Venezuela. Nonetheless, it acknowledges that there is potential for a positive relationship between FDI and sustainable development,. There are some key factors however, which have been highlighted in existing research on FDI and sustainable development which must be taken into consideration in formulating FDI relations. Transparency is fundamental to the success of FDI. Opacity which prevails in the oil sector is not conducive to successful development. Whilst the literature synthesized in this paper has tended to focus on TNCs, in the case of Venezuela small and medium investors should be considered to minimize company control.

## **Conclusion**

Venezuela's development remains heavily reliant on oil and as Chavez has admitted himself, the terminus of cheap oil has occurred. There must be a reassessment of the development model.

This paper has discussed the important issue of oil-reliance for the Venezuelan economy and thus, the development. Firstly, a synthesis of the current literature was provided as a backdrop for the main debate. Here it was surmised that FDI is not a guarantee for development and whilst research has yielded mixed findings on the impacts of FDI for sustainable development, it has in a number of cases played a positive role. In addition, the majority of literature does not address the multifaceted nature of sustainable development, at its most simple level, and for the purpose of this paper, three elements: economic, social and environmental. Importantly, it was highlighted that such research had not been carried out with regards to Venezuela. Venezuela's economy was next explored, explicating the phenomenon 'Dutch disease' and 'Paradox of Plenty' both suffered by Venezuela as a result of its great oil wealth. Venezuela's approach to sustainable development was discussed, positing that only the social facet has been properly addressed by the current administration due to the current oil boom, which has enabled the improvements for social development

through financing by PdVSA. The measures of the government debilitating sustainable development of the country were then turned to, including lack of diversification of the economy. All of the government spending and development is financed by oil windfall revenue. In light of global environmental issues, potentially affecting the lives of millions, oil is not the answer. Accumulated history has shown oil has in fact retarded development. The heavy dependence on oil is at the root of the barrier to sustainable development, an imperative shift is required from fossil fuel to cleaner technologies to minimize negative effects on the global environment and population. In the final section of the paper some reflections were provided on possible measures and policies the Venezuelan government could execute with suggestions for FDI, to facilitate the shift from their heavy dependence on oil, which is desperately needed at the end of cheap fossil fuel-era.

It was also acknowledged that the brevity of the paper limited full analyses that its main purpose was to highlight the dire need for further research to be done into the case of Venezuela if it is to become sustainable. This paper has provided a prelude to the much needed further research into the case of Venezuela and the role FDI could play in attaining sustainable development.

## **Bibliography**

- Aitken, B. and Harrison, A. (1999) Do Domestic Firms Benefit from Direct Foreign Investment? Evidence from Venezuela. *The American Economic Review*. pp. 605-618. [Online] Jstor.
- Barbajosa, A. (2008) Shell, Exxon Tap Oil Sands, Gas as Reserves Dwindle. *Energy Bulletin* . URL: <http://www.energybulletin.net/4385.html> [Accessed February 26, 2008]
- BBC News (2000) Oil for Sale. *BBC News*. URL: <http://news.bbc.co.uk/1/hi/business/850775.stm> [Accessed December 3, 2007]
- Bruce, I. (2004) Venezuela raises oil drilling tax. *BBC News*. URL: <http://news.bbc.co.uk/1/hi/world/americas/3732224.stm> [Accessed February 28, 2008]
- Campbell, C. and Laherrere, J. (1998) The End of Cheap Oil. *The Scientific American*. 278 (3). pp. 78-83.
- Campbell, C. (2008) *In Crude Facts*. *BBC Radio 4*, June 19, 2007. URL: <http://www.bbc.co.uk/radio4/science/crudefacts.shtml> [Accessed December 3, 2007]
- Carroll, R.(2007) Venezuela Scrambles for Food despite Oil Boom. *The Guardian*, November 14, 2007. URL: <http://www.guardian.co.uk/world/2007/nov/14/venezuela.international> [Accessed February 26, 2008]

Carroll, R. (2008) Cheap and Cheerful: Venezuelans Cling to the Right for Petro at 42p a Tank. *The Guardian*, January 18, 2008. p. 29.

Caton, T. (2007) Chavez Seizes Oil Groups' Control of \$30bn Projects in May Day Raid. *The Times: Business*, May 1, 2007. URL: [http://business.timesonline.co.uk/tol/business/industry\\_sectors/natural\\_resources/article1733837.ece](http://business.timesonline.co.uk/tol/business/industry_sectors/natural_resources/article1733837.ece) [Accessed December 10, 2007]

Chavez, A. (2002) cited In Wilpert, G. (2007) *Changing Venezuela by Taking Power: the History and Policies of the Chavez Government*. London: Verso

Chavez, H. (2006) *Aló Presidente*, No. 257. June 4, 2006. <http://www.alopresidente.gob.ve/> [Accessed February 26, 2008]

Chudnovsky, D. and Lopez, A. (1999) TNCs and the diffusion of environmentally friendly technologies to developing countries. Occasional paper no. 9. *Prepared for the pre-UNCTAD X seminar 'Making FDI Work for Sustainable Development'*. URL: [http://www.instoec.de/fileadmin/user\\_upload/ditcted9\\_en.pdf](http://www.instoec.de/fileadmin/user_upload/ditcted9_en.pdf) [Accessed December 28, 2007]

Dicks, A. (1996) Hydrogen Generation from Natural Gas for the Fuel Cell Systems of Tomorrow. *Journal of Power Sources*. 61 (1). Pp. 113-124. [Online] Ingenta Connect.

Dufey, A. (2004) The Promotion of Sustainable Foreign Direct Investment in South America. *Paper prepared for the IIED workshop 'The South American Perspective on the European Union's Policy for Sustainable Development', Santiago de Chile, 19th - 20th July 2004*. URL: [http://www.iied.org/SM/eep/projects/\\_project\\_docs/FDIinSouthAmericaenglish.pdf](http://www.iied.org/SM/eep/projects/_project_docs/FDIinSouthAmericaenglish.pdf) [Accessed December 15, 2007]

Dunning, J. (1970) *Studies in International Investment*. London, Allen and Unwin.

Dunning, J. (1993) *Multinational Enterprises and the Global Economy*. Wokingham, Addison-Wesley.

Dunning, J. (1994) Re-evaluating the Benefits of Foreign Direct Investment. *Transnational Corporations*, 3 (1), pp. 27 -51. URL: [http://www.unctad.org/en/docs/iteiitv3n1a3\\_en.pdf](http://www.unctad.org/en/docs/iteiitv3n1a3_en.pdf) [Accessed February 7, 2008]

ECLAC (2007) Bolivarian Republic of Venezuela. Pp. 71-72. URL: [http://www.eclac.cl/publicaciones/xml/3/27543/Bolivarian\\_Republic\\_of\\_Venezuela.pdf](http://www.eclac.cl/publicaciones/xml/3/27543/Bolivarian_Republic_of_Venezuela.pdf) [Accessed February 25, 2008]

EIA (2008) Venezuela: Oil. URL: <http://www.eia.doe.gov/emeu/cabs/Venezuela/Oil.html> [Accessed February 23, 2008]

EIU (2007a) *Country Profile 2007: Venezuela*. London, Economist Intelligence Unit Ltd.

EIU (2007b) *Country Report August 2007: Venezuela*. London, Economist Intelligence Unit Ltd.

EIU (2007c) *Monthly Country Report October 2007: Venezuela*. London, Economist Intelligence Unit Ltd.

Fox, M. (2006) Coup d'etat in Venezuela's Flagship Endogenous Development Center? URL: <http://www.venezuelanalysis.com/analysis/1889> [Accessed February 23, 2008]

Gallagher, K. and Zarsky, L. (2003) Searching for the Holy Grail? Making FDI work for Sustainable Development, *WWF Analytical Paper* pp. 1-29. URL: [http://ase.tufts.edu/gdae/publications/articles\\_reports/KG-LZ\\_FDI\\_report.pdf](http://ase.tufts.edu/gdae/publications/articles_reports/KG-LZ_FDI_report.pdf) [Accessed December 15, 2007]

Gallagher, K. (2005) FDI as a Sustainable Development Strategy, Evidence from Mexican Manufacturing. *Center for Latin American Studies, University of California, Working Paper No. 14*. URL: <http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1024&context=clas> [Accessed December 15, 2007]

Gardiner, R (2000) Foreign Direct Investment, A Lead Driver for Sustainable Development? *Towards Earth Summit 2002*, Economic Briefing Series No.1. URL: <http://www.earthsummit2002.org/es/issues/FDI/fdi.pdf> [Accessed December 14, 2007]

Global Forest Watch (2008) Venezuela: Overview. URL: <http://www.globalforestwatch.org/english/venezuela/> [Accessed February 28, 2008]

Graham, E. (1995) FDI and the World Economy. *IMF Working Paper*, wp/95/59. [Online] Social Science Research Network.

Gross, M. (2008) Turning Gas into Fuel Cheaply. *Royal Society of Chemistry*. URL: <http://www.rsc.org/chemistryworld/News/2008/January/23010802.asp> [Accessed February 26, 2008]

Hansen, M. (2002) *Managing the Environment Across Borders: a study of TNC affiliates' environmental practices in China, Malaysia and India*. Copenhagen, Forlaget Samfundslitteratur.

Hanson, G. (2001) Should Countries Promote Foreign Direct Investment? *G-24 Discussion Paper*. Geneva, UNCTAD.

Humphreys, M. Sachs, J. and Stiglitz, J. (eds) (2007) *Escaping the Resource Curse*. Columbia: Columbia University Press.

Hymer, S. (1960) *The International Operations of National Firms, A Study of Direct Investment*. PhD dissertation, Massachusetts Institute Of Technology. URL: <http://dspace.mit.edu/handle/1721.1/27375> [Accessed December 14, 2007]

IIED (2005) Lifting the Lid on Foreign Investment Contracts: The Real Deal for Sustainable Development. *IIED Sustainable Markets Briefing Paper No. 1*. URL: <http://www.iied.org/pubs/pdfs/16007IIED.pdf> [Accessed December 21, 2007]

IISD (2002) Foreign Investment, Making it Work for Sustainable Development. *Paper commissioned for the IISD Eastern Europe Capacity Building Workshops project*. URL: [http://www.iisd.org/pdf/2003/trade\\_ee\\_investment.pdf](http://www.iisd.org/pdf/2003/trade_ee_investment.pdf) [Accessed December 21, 2007]

IPCC (2007) *Climate Change 2007: IPCC Fourth Assessment Report*. Cambridge, Cambridge University Press.

JBIC (2001) Japan Bank for International Cooperation Newsletter No. 4. *JBIC Today*. URL: [http://www.jbic.go.jp/english/base/publish/today/pdf/td\\_04.pdf](http://www.jbic.go.jp/english/base/publish/today/pdf/td_04.pdf) [Accessed February 28, 2008]

Jones, J. and Haggett, S. (2007) Oil sands no quick fix as Big Oil leaves Venezuela, July 4, 2007. URL: <http://www.reuters.com/article/ousiv/idUSN2741612020070704> [Accessed February 28, 2008]

Jones, M. (2006) Chavez Rules Out Return to Cheap Oil. *BBC News*, April 3, 2006. URL: <http://news.bbc.co.uk/1/hi/world/americas/4871938.stm> [Accessed February 26, 2008]

Karl, T. (1997) *The Paradox of Plenty*. Berkeley, University of California Press.

Karl, T. (2007) Ensuring Fairness: The case for a Transparent Fiscal Social Contract. In Humphreys, M. Sachs, J. and Stiglitz, J. (eds) *Escaping the Resource Curse*. Columbia: Columbia University Press. pp. 256-289.

Kirby, S. (2008) Paris Readies for Velib Frenzy. *BBC News*, July 15, 2007. URL: <http://news.bbc.co.uk/1/hi/world/europe/6899082.stm> [Accessed February 17, 2008]

Lim, E. (2001) Determinants of the Relation Between Foreign Direct Investment and Growth. *IMF Working Paper*, 01/75. URL: <http://www.imf.org/external/pubs/ft/wp/2001/wp01175.pdf> [Accessed December 17, 2007]

Mabey, N. and McNally, R. (1999) Foreign Direct Investment and the Environment, From Pollution Havens to Sustainable Development. *WWF-UK Report*. Paris, OECD. URL: <http://www.wwf-uk.org/filelibrary/pdf/fdi.pdf> [Accessed December 21, 2007]

Maas, P. (2005) The Breaking Point. *The New York Times*, August 21, 2005. URL: <http://www.nytimes.com/2005/08/21/magazine/21OIL.html?pagewanted=6> [Accessed February 28, 2008]

McNally, R. (2000) A Framework for Regulating International Investment. *WWF-UK Report*. Paris, OECD. URL: <http://www.wwf-uk.org/filelibrary/pdf/fdi.pdf> [Accessed December 21, 2007]

Meacher, M. (2000) We've Got to Fix Those Cars: Special Report: The Petrol War. *The Guardian*, October 31, 2000. URL: <http://www.guardian.co.uk/world/2000/oct/31/weather.oil> [Accessed February 17, 2008]

Mitchell, J. Morita, K. Selley, N. and Stern, J. (2001) *The New Economy of Oil: Impacts on business, geopolitics and society*. London, Earthscan.

Moran, T. (1998) Foreign Direct Investment and Development: The New Policy Agenda for Developing Countries and Economies in Transition. Washington DC, Institute for International Economics.

Morsbach, G. (2006) Venezuelan Shoppers Face Food Shortages. *BBC News*, January 10, 2006. URL: <http://news.bbc.co.uk/1/hi/business/4599260.stm> [Accessed February 26, 2008]

Mortishead, C. (2006) Venezuela Doubles Tax on Oil Majors *The Times: Business*. May 9, 2006. URL:

[http://business.timesonline.co.uk/tol/business/industry\\_sectors/natural\\_resources/article714662.ece](http://business.timesonline.co.uk/tol/business/industry_sectors/natural_resources/article714662.ece) [Accessed January 21, 2008]

Mortishead, C. (2008) Can Shell's Canadian Sands Yield More Oil Than Saudi Deserts? *The Times: Business*. February 28, 2005. URL: [http://business.timesonline.co.uk/tol/business/industry\\_sectors/natural\\_resources/article419487.ece](http://business.timesonline.co.uk/tol/business/industry_sectors/natural_resources/article419487.ece) [Accessed January 10, 2008]

Obiko-Pearson, N. (2007) Meat, Sugar Scarce in Venezuela Stores. *The Washington Post*, February 8, 2007. URL: <http://www.washingtonpost.com/wp-dyn/content/article/2007/02/08/AR2007020801240.html> [Accessed February 28, 2008]

ODI (1997) Foreign Direct Investment flows to low income countries. *ODI Briefing Paper No. 3*. [Online] URL, [http://www.odi.org.uk/publications/briefing/3\\_97.html](http://www.odi.org.uk/publications/briefing/3_97.html) [Accessed 14 January 2008]

OECD (2001) Foreign Direct Investment and Sustainable Development. *OECD Global Forum on International Investment. Mexico City, 26 -27 November 200*. URL: <http://www.oecd.org/dataoecd/54/19/2408079.pdf> [Accessed December 15, 2007]

O' Shaughnessy, H. (2000) In the Line of Fire. *The Observer*, December 31, 2000. URL: <http://www.guardian.co.uk/theobserver/2000/dec/31/focus.news> [Accessed February 28, 2008]

The Economist (2008) Exxon's Wrathful Tiger takes on Hugo Chavez. *The Economist*, February 16, 2008.

The Ministry of Foreign Affairs of Japan (2008) Japan-Venezuelan Relations. URL: <http://www.mofa.go.jp/region/latin/venezuela/index.html> [Accessed February 26, 2008]

Togei de Almeida, L. and dos Santos Rocha, S (2007) Does Foreign Direct Investment Work for Sustainable Development? A case study of the Brazilian pulp and paper industry. *Working Group on Development and Environment in the Americas, Discussion Paper Number 8*. pp. 1 -21. URL: <http://ase.tufts.edu/gdae/Pubs/rp/DP08TogeiRochaMarch07.pdf> [Accessed December 15, 2007]

UNCTAD (2004) Integrating Environmental Requirements into Foreign Direct Investment. *Making FDI Work for Sustainable Development*. Geneva, UNCTAD.

WCED (1987) *Our Common Future*. Oxford, Oxford University Press.

Weisbrot, M. and Sandoval, L. (2007) *The Venezuelan Economy in the Chávez Years*. Washington D.C, Center for Economic and Policy Research.

Wilpert, G. (2007) *Changing Venezuela by Taking Power: the History and Policies of the Chavez Government*. London, Verso.

Wilson, P. (2005) Venezuela expects oil exports to China to soar. *Bloomberg*, August 22, 2007. URL: [http://www.bloomberg.com/apps/news?pid=10000086&sid=aiyK\\_bp10CFU&refer=latin\\_america](http://www.bloomberg.com/apps/news?pid=10000086&sid=aiyK_bp10CFU&refer=latin_america) [Accessed February 22, 2008]

Zarsky (2005) Whither Globalisation? The Beleaguered Promise of Foreign Investment for Sustainable Development. *International Journal of Environmental, Cultural, Economic and Social Sustainability*. Mimeo. [Online] <http://www.aiiavic.org.au/files/papers/Zarsky.pdf> [Accessed December 21, 2007]