# Foreign Direct Investment and Utilization of Natural Gas in Bangladesh

A note on understanding the trap in Development Disguise

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#### Abstract

[Modernization theorists, in the late forties and through fifties worked extensively on theorizing development agenda where they focused on scarcity of capital as one of the major constraints in 'post colonial' third world countries. Foreign Aid (FA) and Foreign Direct Investment (FDI) has always been considered as crucial in development discourses under that paradigm. It has always been argued in modernization theories, later also by second generation modernization theorists, that the capital inflow, in either form, would help third world countries to give a big push in the economy and would break the vicious cycle of poverty and underdevelopment. FDI, according to this dominant view, would contribute in economic development of the 'underdeveloped' countries in different ways. It would bring foreign currency alongwith latest technology, skill manpower, new ideas and modern management; it would also create conditions for strengthening and expanding productive base of the host economies. With these assumptions, strongly glued with the discourse of FDI, it has been customary on the part of policy makers and a significant segment of the economists to hail it uncritically.

With practical experience in Bangladesh at hand, time has come to examine established hypothesis that FDI per se can ensure or at least help the economy to develop and industrialize. In this article an attempt has been made to investigate the natural gas sector and to examine whether optimum utilization of natural gas is directly or inversely correlated to the present form of FDI. It is an attempt to understand the whole scenario, exploring the economics and power matrix behind the crisis where natural gas resources seem to have appeared as a liability for the people of Bangladesh

This article reveals that the whole foreign investment scenario in gas sector does not stand upto scrutiny. The findings of the study concludes that, the FDI took place in gas sector was not warranted considering the local capability and demand-supply scenario. The article also examines the viability of exporting gas.]

"On average, countries which started the period with a high value of resource-based exports to GDP tended to experience slower growth during the following twenty years..."

Jeffrey D. Sachs and Andrew M. Warner, Harvard University, 1997.

"We are not putting any pressure. We are only helping Bangladesh government arrive at decision. The US government will continue its efforts to change the mindset of the people who are against gas export." US Officials in Dhaka, 2000

#### I. Introduction

Modernization theorists, in the late forties and through fifties worked extensively on theorizing development agenda where they focused on scarcity of capital as one of the major constraints in 'post colonial' third world countries. WW Rostow, in the early sixties, termed capital as 'missing component' for these countries. Modernization theorists suggested capital inflow from capitalist centre economies as an almost sure

remedy. Foreign Aid (FA) and Foreign Direct Investment (FDI) has always been considered as crucial in development discourses of third world countries under modernization paradigm.

It has always been argued in modernization theories and in the views held by the second generation theorists, that the capital inflow, in either form, would help third world countries to give a big push in the economy and break the vicious cycle of poverty and underdevelopment. FDI, according to this dominant view, would contribute in economic development of the 'underdeveloped' countries in different ways. It would bring foreign currency along with latest technology, skill manpower, new ideas and modern management; it would also create conditions for strengthening and expanding productive base of the host economies. With these assumptions strongly glued with the discourse of FDI, it has been a custom on the part of policy makers and a significant segment of the economists to hail FDI uncritically.

Upto early nineties, foreign aid, in projects and otherwise, dominated external sector of Bangladesh. Since eighties remittances have been showing significant growth. Gradually it has captured the highest position in foreign exchange inflow. In fact this source is the only 'real' one to ensure foreign exchange inflow in Bangladesh. FDI has been showing a significant rise since 1993. First it was in the Karnafuli Fertilizer Company (Kafco) and then in the oil and gas sector followed by power and telecommunication FDI showed significant rise.

With practical experience in Bangladesh at hand, time has come to examine established hypothesis that FDI *per se* can ensure or at least help the economy to develop and industrialize. In this article an attempt has been made to investigate the natural gas sector and to examine whether optimum utilization of natural gas correlates with the present form of FDI. It is an attempt to understand the whole scenario, exploring the economics and power matrix behind the crisis where gas resources seem to have appeared as a liability to the people of Bangladesh.

In this article, first the concept of natural resource and the issues regarding utilization of gas resources are analyzed in section II. The FDI in this sector and the effects of Production Sharing Contracts (PSCs) are examined in section III. In section IV, the export of gas issue is examined. Conclusion is drawn on the basis of findings in section V.

## II. Natural gas resource and utilization options

Broadly, resources are of two types: replenishable (or renewable or reproducible) and non-replenishable (or nonrenewable or exhaustible resources). Replenishable resources can be reproduced or regenerated by nature and this process may continue forever. On the other hand, nature cannot reproduce or regenerate non-replenishable resources. Non-replenishable resources can be divided into recyclable and nonrecyclable. Despite current

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<sup>&</sup>lt;sup>1</sup> For an extensive review of modernization theories, see Meier and Stiglitz (2001)

usage, recyclable resources, such as gold, can be reprocessed at some cost to be reused by future generations. Non-recyclable resources, such as natural gas cannot be reprocessed to be reused by future generations.<sup>2</sup> The extraction of non-replenishable resources imposes an intergenerational externality. Because if we extract too much today, little or none will be there for future generation.

The concept of common property is important here to deal with the issue of natural gas. Common property is a property that is owned by all; nobody in a country can be excluded from the ownership and authority over that property. Natural resources like gas is a common property owned by the people of Bangladesh. The government of Bangladesh, therefore, is supposed to be a protector of this common property (or public good) and caretaker of that resource. Any attempt to transform the common property a private property, i.e., privatize the common property or to transform public good into a private good, must fulfil two conditions: firstly, it must have strong economic grounding at the interest of the economy and the people at the highest level, and secondly, it be approved by the people- the real owner.

Partha Dashgupta in his extensive study on common property at micro level found that the common people have little access to common property.<sup>3</sup> Common property like natural resources deserve further attention from the economists because at microlevel common properties are being grabbed by local power and at macrolevel common properties like mineral resources are being grabbed by global power. Many instances are available from different parts of the world in this regard. These global powers are mainly of big corporate bodies supported by big state power.

Economics tells us that if we have scarce resources we must look for the best (alternatives) uses of these resources considering the opportunity costs. In order to ensure the best use of the gas resources we must have to bring the following issues under consideration:

- \* Resource position and recoverable reserve.
- \* Optimum use of the resource as a final good and as an input or raw material.
- \* Cost and return of use of gas.
- \* Linkage effect of the use of gas resources.
- \* Role of natural gas as cost saver and income generator.
- \* Environmental effects of use/abuse/unuse of that resource.

## 1. Resource position and recoverable reserve.

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<sup>&</sup>lt;sup>2</sup> J. Vernon Henderson and William Poole: *Principles of Economics*, Ma, US, 1991. Finance Minister of Bangladesh, while criticizing opponents of gas export, made the point that if Jute, Shrimp, Garments could be exported then what is the problem with gas?( Daily Bhorer Kagoj, January 4, 2002) He was trying to argue in favour of implementing Unocal proposal but unfortunately he failed to distinguish between renewable and non-renewable resources.

<sup>&</sup>lt;sup>3</sup> Partha Dashgupta: Environmental and Resource economics in the world of poor, 45<sup>th</sup> Anniversity Paper, Resources for the Future, 9 October 1997, Washington.

We are confronting two types of figures on gas resource position and its recoverable reserve. One type of figures, although vary, come from different studies. Another type of figures we hear from people involved in policy making: some ministers, bureaucrats, consultants of Bangladesh and also bureaucrats, consultants of the west, specially from the US, the center of the major IOCs working in Bangladesh. It is interesting to note that the figures given by the bureaucrats and the others from Bangladesh and the US are much higher than the figures provided by the specialized agencies.

One can see the summary of findings of the recent studies from the Table-1. Figures on gas reserve vary little except Intercom-Kanata Management Ltd (IKM), Canada, where it ranges from 15 to 20 Trillion Cubic Feet (TCF). By changing certain assumptions the latest study of Hydrocarbon Unit of Bangladesh and Norwegian Petroleum Directorate (HCU-NPD) has shown a higher figure. On the other hand, estimate on resource potential, which is quite different from resource reserve, is mostly a statistical exercise. Because, we have different figures with different probabilities- 5% to 95% probabilities.

Table 1: Different Studies and the Findings on Resource and Reserve Situation<sup>5</sup>

Name of the Study	GIIP (TCF)	Reserve (TCF)	Field Growth (TCF)	Resource Potential (TCF)
Intercom-Kanata Management Ltd (IKM), Canada, 1992	15.65	9.04	-	-
Petrobangla, (based on studies conducted by different consulting firms including from Canada and UK), revised in 2001	24.745	15.51	-	-
Buet, 2001	24.4	-	-	=
Shell, 1998	-	18	5-6	20-40*
Unocal, 2001	-	16.1	12.8	13.2*, mean (90% probability 5.3TCF, 10% probability 22.6 TCF).
Petrobangla-USGS, January 2001 (funded by USAID. Data provided by Shell, Unocal and Cairn-Energy were incorporated)	-	-	-	32.1, mean (8.43 TCF with 95% probability and 65.7 TCF with 5% probability).
Hydrocarbon Unit of Bangladesh and Norwegian Petroleum Directorate (HCU- NPD), January 2002.	28.79	20.44	2.03	41.6**, mean (18.5 TCF with 90% probability and 63.7 TCF with 10% probability.

\*Both Shell and Unocal revised their estimates upward "in the light of the USGS-Petrobangla study". Shell reestimated the total resource base between 43 to 64 TCF, where reserve is 18 TCF, field growth is 5-6

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<sup>&</sup>lt;sup>4</sup> Although it is well known that any decision regarding gas depends on reserve situation not on resource position but influential paties working in favour of IOCs prefer to accept figures with 5% probability. <sup>5</sup> Based on the information provided by Quader and Gomes (2002), Islam (2001), Abdullah and Kamal(2001)

TCF, and the undiscovered resource potential is 20-40 TCF. Unocal concluded the total hydrocarbon resource base of the country as 61 TCF, in which discovered reserve 16.1 TCF, field growth potential 12.8 TCF and undiscovered resource potential 32.1 TCF. (Quader and Gomes, 2002) \*\*The study has considered 70-75% recovery factor in different gas fields compared to 52-70% used by Petrobangla. (ibid.)

From the Table-1, it is clear that the recoverable reserve does not exceed 20.44 tcf, which is not at all a significant one. This figure came from the latest study, which has considered 70-75% recovery factor instead of standard practice of 50-70%. Other studies found less.

# 2. Optimum use of the resource as an input or raw material and as a final good.

Bangladesh is basically a mono energy country, 70 percent of commercial energy comes from natural gas here. Natural gas constitutes 8 percent of total commercial energy in India, 9 percent in South Korea, 42 percent in Pakistan.<sup>6</sup> On the other hand, per capita energy consumption in Bangladesh is the lowest in the South Asia and also in the world. The latest available figure shows that it is only 197 kgOE while it is 321 for Nepal, 442 for Pakistan and 479 for India, 287 in Ethiopia, Haiti 237.<sup>7</sup> So, natural gas can be blessings if it is used carefully and the same can be a curse for the people of Bangladesh if it is abused.

We have the opportunity and necessity for multiple uses of gas. We can consume gas as fuel (final good) we can use it as a raw material for producing electricity, fertilizer or any other industrial goods. Table-2 combines figures on two dimensions. At present, power takes lion share of gas, fertilizer comes next. Industry takes third position. On the other hand, annual growth rate of gas consumption has been the highest in industry in the last 10 years, domestic uses come next.

Table 2: Consumption Pattern in the Last Decade

End Use Sectors	Share of total consumption of Gas in 2000	Annual Average Growth Rate of Gas Consumption in the Last 10 years (%)
Power	44.95	6.03
Fertilizer	25.63	5.67
Industry	12.67	25.18
Domestic	8.54	17.49
Commercial	1.26	4.22
Tea Garden	0.20	-1.1
Unsold	6.55	-

Source: GOB (2001)

Table-3 presents a projection figure of gas use in different period of time made by Petrobangla. It shows that for the next 50 years Bangladesh needs 62.99 TCF for

<sup>&</sup>lt;sup>6</sup> Oil and Gas Journal, July 16, 2001.

World Bank(2001): World Development Report 2000/2001

consumption in different sectors.<sup>8</sup> By taking different factors into account it assumes an average growth rate which is considered feasible, around 5%. An influential view, linked with the International Oil Companies (IOCs), considers this projection as overoptimistic; the demand for gas would not increase as projected by Petrobangla. This line of thinking rules out any possibility of a breakthrough in the economy, even unwilling to consider present rate of growth as viable. These people, after accepting this pessimist view, find no use of gas resource within the country.

Table 3: Natural Gas Demand for Fifty Years (2001-2050) (TCF)

End Use Sectors	10 Years	20 Years	30 Years	40 Years	50 Years
Power	2.511	7.775	16.034	27.068	39.7
Fertilizer	0.973	2.096	2.977	3.864	4.75
Industry	0.822	2.506	5.367	9.155	13.52
Domestic/Commercial	0.537	1.331	2.382	3.594	4.93
Total	4.843	13.708	26.764	43.681	62.99

Source: Petrobangla, 2001.

On the contrary, one could consider this projection underestimated and conservative. Demand for gas has certain characteristics of its own. It depends mostly on the development of other sectors. In most of the cases, demand for gas is derived demand. Development of physical infrastructure and growth of industrialization would increase demand for gas at a progressive rate. It is important to note that today only 5 percent people use gas as a fuel and less than 20 percent of Bangladesh population use electricity. The 50 years projection made by the Petrobangla in Table-3 did not consider any objective of providing gas to every household and electrification to every corner of the country. If we consider the future demand from the household and power sector this projection no way can be called overoptimistic and unrealistic.

## 3. Cost and return of use of gas.

No government has ever taken any initiative to formulate a comprehensive plan to utilize gas resources. So, cost-benefit analysis regarding use of gas in fact does not exist. Some estimates have been made available to show that the return from the export of gas is the highest compared to other use<sup>10</sup>. Their methodology deserves scrutiny. These estimates are based on only short run limited options that ignored linkage effects of a resource like gas. Moreover, social cost and benefit were not included in their analysis.

Shell(1999), Quader and Gomes(2002)

<sup>&</sup>lt;sup>8</sup> State Minister for Energy categorically mentioned that about 4 Tcf gas had been utilized during last 55 years, maximum 8 tcf will be needed for the next 50 years, (Daily Prothom Alo, January 28, 2002) This figure given by the state minister is very much in contrary to the figure estimated by the Petrobangla the specialised agency of Bangladesh.

<sup>&</sup>lt;sup>9</sup> But in another discourse it is said that, "if the goal of reducing the incidence of national poverty by half is to be achieved by 2015 then Bangladesh needs to sustain a GDP growth rate of about 7 per cent per year over the next 15 years." (GOB, 2002) This PRSP document is prepared and recommended with that optimism. But that becomes 'unrealistic' when the issue of gas utilization comes in.

# 4. Linkage effect of the use of gas resources.

Since use of gas has multiplier effect the return from gas based electricity cannot be measured only by estimating the cost of installing power plants and return from the cash revenue out of it because use of gas has multiplier effect. It should include the chain benefits it creates by developing conditions for industrialization, low cost irrigation and low cost business as well as low-cost household activities.

# 5. Role of natural gas as cost saver and income generator.

Natural gas can be a cost saver as well as income generator. Other than creating foundation of low cost energy infrastructure it has also a high potential of saving huge resources on importing petroleum. Experts opine that, we now spend 500 million dollar per year (nearly 2900 crore taka) to import about 3.35 million ton petroleum and related goods. On the other hand, even at a low-level consumption, we are enjoying fuel support from gas equivalent to 9 million-ton petroleum that costs about nearly 8000 crore taka. That means if there were no gas we could be in a position to spend more 8000 crore taka in foreign exchange for importing. The situation is fast heading towards that direction. On the other hand, it is possible to save more by using gas in transport. Use of gas by household and as transport fuel can give millions of families a much cheaper and environment friendly option.

## 6. Environmental effects of use/abuse/unuse of that resource.

Extensive use of gas can have positive impacts on two accounts: (1) it can save our trees and forests (2) it can reduce pollution.

In Bangladesh major share of total energy comes from traditional energy sources (e.g. biomassfuels). About 95 percent of the total population depend on wood (reserve forests and village wood lots) and kerosene for their fuel. Any expansion of gas network would reduce the cost of living of our people and also save our environment through saving our forests and trees.

From an estimate we find that if natural gas could be used as transport fuel it would be possible to save huge amount of foreign exchange. Moreover, it is also capable of creating big consumer surplus, since it is cheaper. Only in Dhaka City 500 mmcft is needed (this is equal to the amount Unocal proposing for export) for transport fuel, which can reduce transport cost by one third, and it can save 10 million people from health hazard. On the other hand, irresponsible and inefficient act on the drilling of gas field can create a big havoc. Magurchara blowout is such an example. This has been done by Occidental, and responsibility has been taken over by Unocal.

<sup>12</sup> Estimate by Engr Shahidullah, 2001.

<sup>&</sup>lt;sup>11</sup> Abdullah and Kamal (2001)

<sup>&</sup>lt;sup>13</sup> The report on the damage is yet to be publised although it was submitted on 30 July 1997. Experts opine that 0.4 tcf gas had been destroyed value of which is nearly 50 billion taka and environment cost is nearly 90 billion taka. No compensation has been paid by the company and no government has seriously asked for it.

# III. FDI and Production Sharing Contracts (PSCs): What is happening?

Foreign Direct Investment (FDI) has never been significant in Bangladesh. Historically, Foreign aid played a crucial role here to integrate Bangladesh into the global economy, industrially developed capitalist economies in particular. Since 1993/94 US\$407.46 million was invested which was nearly ten times compared to FDI took place in 1991/92. It happened due to foreign investment in Karnafuli Fertilizer Company (KAFCO). Since 1996 the annual averages of the highest capital inflows of FDI took place in the gas sector (US\$134 million) followed by power sector (US\$113 million) in 5 years time. Although telecom shows small figure (US\$17 million), FDI inflow in that sub-sector alone has shown substantial increase in the later years<sup>14</sup>.

World Bank, visibly as a coordinator of 'development' activities of international agencies in Bangladesh has categorically stated that, the nature of FDI in Bangladesh "has implied little augmentation of foreign exchange reserves" because, "the bulk of FDI in the power sector so far is made up of imports (e.g. pre-fabricated barge mounted power plants); so are capital costs (about 85% of PSCs) of IOCs engaged in the gas sector, and much of the foreign investment and lending in the telecom sector finance imports of telecommunications equipment." It also stated that, "Petrobangla buys gas from IOCs at a price linked to the international price of fuel oil. Petrobangla will incur increasing deficits, leading to a negative cash flow of more than \$120 million in both 2001 and 2002. To rectify this, a tariff increase of another 25% (beyond 15% already implemented) over two years required." It also prescribed gas exports as a rescue measure to mitigate this problem. <sup>15</sup>

On September 18, 2001 the total production of gas in the country was 1042 MMCFD and the two IOCs contribution was 176 MMSCFD<sup>16</sup>. These figures and related facts reveal the following (1) Even five years after signing contracts, IOCs share of production has come to less than 20 percent. (2) With that foreign participation supply of gas has become surplus given the available infrastructure and its ability to utilize gas resource, and (3) during the same period, the production of the local company has been reduced and human and material capacity of the national exploration company Bapex has been kept underutilized to give space to the IOCs.

Table 4: Before and after signing PSCs

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	Before PSC	After PSC		
Petrobangla's performance	discovered 10 gas fields and	none		
	1 oil field costing only 900			
	crore taka.			
Petrobangla's financial	profitable, average profit	losing, more than 1800		
condition	200 crore taka per year	crore take in 3 years		
Foreign currency	no adverse impact from	adverse impact from foreign		
-	exploration and production	investment in exploration		

<sup>&</sup>lt;sup>14</sup> World Bank, 1999. See for detail discussion on FDI related to manufacturing Muhammad et al (2002)

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<sup>&</sup>lt;sup>15</sup> World Bank, 1999

<sup>&</sup>lt;sup>16</sup> Quader and Gomes, 2002

	of natural gas.	and production of natural	
		gas.	
Gas price	no increase from 1994 to 1998.	increased by 51% since 1998.	

Source: data from the Report, 2002

From Table-4, it should be clear that, (1) today's production of gas could have been easily possible by the local companies if they were given the opportunity, (2) if governments could have played its due role it could have been possible for the local companies and experts to expand their capability and build necessary institutions for sustainable use of gas resource.

On the contrary, what governments have done are given below:

- 1. Governments signed contracts to get gas at average 150 taka when it was possible to get it at less than 30 taka.
- 2. Governments signed contracts to get its own gas by costly foreign currency from the IOCs when it was possible to get it by local currency from its own company.
- 3. Governments chose to bring IOCs to explore gas when BAPEX, the national exploration agency, had the ability to do the same.
- 4. Governments continued signing contracts even after it was found that with existing infrastructure further production of gas would be highly problematic.
- 5. Governments signed contracts to exhaust limited and non-renewable resources within a few years time depriving people of fuel, electricity and gas-based industrialization.
- 6. Government has turned common property into private property virtually owned by the IOCs.

At least three problems are often referred as a part of pressure for exporting gas. These are:

- (i) Erosion of Foreign exchange reserve, because Bangladesh have to purchase gas from IOCs in foreign exchange at a price that is linked with international market (more than double of the local price).
- (ii) Budget deficit, because of the difference between buying price and selling price in the domestic market.
- (iii) Excess supply, unmatched with domestic demand.

One solution of this has been proposed by the global coalition is to export gas and another is continuous price rising. An alternative solution has been offered by the people's initiatives: cancel all PSCs and take comprehensive planning for meeting human and productive needs of Bangladesh<sup>17</sup>.

# IV. Economics of Export

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<sup>&</sup>lt;sup>17</sup> On 3<sup>rd</sup> January, 2002 a national peoples' convention was held at Osmany Udyan participated by more than 10 thousand people from 55 districts. The convention asked for cancellation of all disastrous PSCs and punishment of those responsible for the contracts. It also demanded compensation from UNOCAL for the blowout it caused in Magurchara gas field. The convention declared two months programme including peoples' march on 20 March to one of the blocks now 'owned' by Unocal. Details on the covention is available in <a href="www.meghbarta.org">www.meghbarta.org</a>, January 2002.

Export *per se* cannot ensure growth. The positive contribution of exports to the economy depends on various factors: (1) What is being exported at what cost? (2) Who are really taking the benefit? (3) What is happening with the revenue? And (4) What are the linkage effects?

This is obviously unwise and illogical to oppose export of any commodity that (i) adds more value than utilizing within country, (ii) export of which has less opportunity cost and (iii) which by being exported would help other sectors of the economy by bringing in huge amount of foreign exchange and expertise etc and (iv) it would be environment friendly or non damaging.

Contrary to that, it would be unjustified economically and socially if any government attempts to export any good (i) real export earning of which is much lower than it's potential to earn within the country, (ii) which has huge opportunity cost and (iii) if exported, possibility to harm growth of other productive sectors. (iv) export of which might be environment-disastrous for the country as a whole.

In economics, number of theories have been developed since Mercantilists' days regarding international trade. Adam Smith formulated theory of absolute advantage and argued in favour of specialization in specific commodity export on which a nation has absolute advantage. Taking into account the technological progress, David Ricardo, looked at the wider opportunities and developed the Theory of Comparative Advantage. In this theory Ricardo gave much emphasis on comparative advantage. He argued that, if two countries have similar advantage in certain commodity, each of the countries must have comparative advantage of producing one of the commodities. So, both parties can be benefited from this. Theory of opportunity cost later look at the problem from different aspect. It offered the idea of examining opportunity cost of export of a commodity. We have also Hecksher-Ohlin theory, which gave emphasis on factor requirements and factor endowments of the commodity to be exported.

None of these theories would support the proposition of export of gas. There are multiple reasons behind this:

- 1. If we consider the present and potential demand of gas within the country, natural gas in Bangladesh is not proved to be sufficient, rather it is far less than abundant.
- 2. The export of gas has high opportunity cost.
- 3. The export will be environmentally disastrous.
- 4. By exporting gas Bangladesh will fall into more foreign exchange spending trap on importing petroleum goods, power, fertilizer and other gas-related goods.
- 5. Both absolute advantage and comparative advantage should not be taken as static for a country. It changes with technological changes and development of new opportunities. 'East Asian miracle' is an example of changing comparative advantage from primary goods to manufacturing goods in one generation.
- 6. Moreover, according to the PSCs Bangladesh is, in fact, has little share over it's own resources. Therefore, larger portion of the probable revenue earnings from the export of gas would be owned by the international companies (IOCs).

This is relevant to refer experiences of other countries in similar projects. The basic pattern that was found in a study on 95 developing countries, taking each country's annual growth rate between 1970-90 is not promising. Because, according to the study, "on average, countries which started the period with a high value of resource-based exports to GDP tended to experience slower growth during the following twenty years..."

World Bank's documents on macrolevel data of several countries support this findings. It appears to be the worst case of the whole scenario when we look at Nigeria- the big oil-exporting country and a case study of Shell operation. In Nigeria, not only rate of growth but also absolute per capita GNP has been sliced down less than half from US\$870 to US\$310 between 1980 and 2000, 19. According to Jeffrey Sachs, in 2000 Nigeria spent five times its public health budget on debt servicing 20 and in 'oil exporting' country 42.8 percent of people were below the national poverty level in 1992, by 2000 it reached to 65.6 percent. 21

We can now refer to Myanmar, one UNOCAL case. Afghanistan is its another project. Suffice it to quote from the *Economist*. The *Economist* says, "an energy rich country, Myanmar is now suffering the worst fuel shortage in the region. Its own citizens are starved of electricity, but the regime sells a steady stream of natural gas to neighbouring Thailand. Yet this export success has not saved the public finances. Current reserves are estimated at no more than US\$240 million-enough to cover only the next six weeks of imports. A shortage of foreign exchange has caused the black-market price of gasoline up by 600% in less than a year."<sup>22</sup>

#### Conclusion

There are ample evidences to say that Bangladesh suffers more from drainage of resources than from lack of resources. Even the World Bank admits this when it says "by reducing corruption it is possible to add between 2.1 to 2.9% to annual per capita GDP growth, it could also lower poverty by 25 percentage points"<sup>23</sup>. It also says that, "per capita income in a corruption free Bangladesh could have nearly doubled to US\$700 instead of US\$350 reflects the harmful impact of bribery, kickbacks and similar under the table payments on investment levels and misallocated resources."<sup>24</sup> But question arises that how contracts like the present PSCs, causing more resource drainage, signed with support and patronage from the same Bank? What incentive system or economic logic

<sup>&</sup>lt;sup>18</sup> Jeffrey D. Sachs and Andrew M. Warner, "Natural Resource Abundance and Economic Growth" HIID, 1997.

<sup>&</sup>lt;sup>19</sup> World Bank, 1983 and 2001.

<sup>&</sup>lt;sup>20</sup> Financial Times, 25.4.00

<sup>&</sup>lt;sup>21</sup> World Bank,2001.

<sup>&</sup>lt;sup>22</sup> The Economist, April 4, 2002.

<sup>&</sup>lt;sup>23</sup> World Bank: "Corruption in Bangladesh, costs and causes", draft report.

<sup>&</sup>lt;sup>24</sup> Daily Star, April 4, 2000.

other that high corruption could be vital behind all these destructive moves in the name of 'Development'?<sup>25</sup>

After analyzing all the revealing facts it can be easily concluded that the whole foreign investment scenario in gas sector does not stand the scrutiny. The FDI took place in gas sector was not warranted considering the local capability and demand-supply scenario. Moreover, this FDI, which became functional through PSCs (i) created adverse impact on foreign exchange reserve instead of making foreign exchange resource more available, (ii) instead of developing capabilities it affected local expertise and institutional capability negatively. (iii) affected resource balance and caused rise of gas price which through multiplier effect caused a rise of production cost in different sectors and an erosion of its competitiveness. And finally it (iv) obstructed optimum utilization of gas resources for the people and the economy.

The article also looked into the export of gas controversy. It recognizes International Oil Companies (IOC)s urgency for exporting gas, where they need to maximize the present value of profits. They would like to transform the gas resources into capital; otherwise they could face declining price or they could be deprived of interest from current revenue. But the article draws attention to the fact that the interest of the people of this generation and the future ones of Bangladesh are quite opposite to those corporate bodies. People need to maximize value of every unit of gas and link it to develop other productive areas. FDI, in this sector, stands against this.<sup>26</sup>

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<sup>&</sup>lt;sup>25</sup> There are some factors of power matrix that we confront while analyzing gas issue in Bangladesh. The links between US administration and the major oil companies have become a matter of guess specially after recent debacle of Enron and the horrible experience of Afghanistan where Unocal had close links with Taliban or it's role in Myanmar.

<sup>&</sup>lt;sup>26</sup> It seems that, a global coalition comprising the US administration and its embassy in Bangladesh, World Bank, British government and its High Commission, Asian Development Bank has been emerged in dealing gas business in Bangladesh. It has been working hard as lobbying bodies for the oil companies like UNOCAL, SHELL, CHEVRON, TEXACO etc. Along with oil companies they are busy to have sufficiently corrupt government, consultants, big bureaucrats and the media to implement disastrous work plan of the IOCs in the name of development. To some extent they got their allies but it is obligatory for the economists to get the bad smell behind corporate development perfume.

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