

QUO VADIS? INTERFACE BETWEEN ECONOMIC DEVELOPMENT AND ENVIRONMENTAL SUSTAINABILITY IN GLOBAL PERSPECTIVE

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In this article a link between economic development and environmental sustainability is examined. Especial note is concerned on the problem of resource curse as despite of importance of natural capital for sustainable economic development, we believe that increasing economic dependence on natural resource exploitation appears to be a hindrance to growth and development in today's poor economies. Therefor the effectiveness of institution mechanism is believed to be the main instrument on the way of economic development.

Key words: economic development, environmental sustainability, uneven economic development, resource dependency, institutions, resource curse

Introduction

The problem of environmental sustainability is controversial, especially after the Rio Earth Summit after which the issue of relieving the global environmental system through the introduction to the paradigm of sustainable development became topical [1, c. 708]. The link between economic development and environmental sustainability became more actual nowadays as uneven level of world economic development requires a qualitatively new understanding of the concept of global development. As Joseph E Stiglitz, who is a recipient of the Nobel Memorial Prize in Economic Sciences, pointed out, the main objective of development is to improve and sustain well-being of people living in developing countries, which might be expressed not only in increasing of GDP, but as well resources (including all aspects of environment) be managed well. Environmental degradation can detract from the pace of economic development by imposing high costs on developing countries through health-related expenses and the reduced productivity of resources. In fact, the poorest 20% of the world's population will experience the consequences of environmental ills most actually, moreover the inaccessibility of sanitation and clean water mainly affects the poor and is believed to be responsible for 80% of disease worldwide [5, p. 470].

According to resolution adopted by the General Assembly of UN there are eight Millennium development goals, including "Eradicate extreme poverty and hunger" which is target for 2015 to halve the proportion of people living on less than 1\$ a day and those who suffer from hunger, as well as "Ensure environmental sustainability" which includes general target to integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources. Target for 2015 is to reduce by half the proportion of people without access to safe drinking water and target to 2020 is to achieve significant improvement in the lives of at least 100 million slum dwellers [6]. We

can assume that in today's globalized and integrated world economic development and environmental sustainability goes hand in hand. Moreover, economic policy has strong effect on quality of the environment and resource management, especially bad environmental policies have particularly adverse effects on the poor.

Resource paradox illustrates the issue in general: countries with large endowments of natural resources seem, on, average, to perform more poor than those without resources, like Congo and Sierra Leone. There are as well examples of successful countries without resources like Korea and Singapore, and of course successful resource-rich countries like Malaysia and Botswana. But the point that so many resource rich countries fail to success because of corrupt and dictatorial regimes is obvious.

For example, resource rich countries are marked by high degree of inequality (rich countries with poor people). This illustrates endogenous problems of governance.

Political economy concepts are out of the great importance in these issues as far as environmental sustainability requires an integrated set of policies, not just environmental policy. It requires most of all reforms in political process both in North and South [4].

Set of the problem

The point of this paper is to explore the problem of recourse exploitation in developing countries, namely interface between development and environment. According to the Population Reference Bureau, which has monitored a variety of statistical data, in 2011 48% of the population lives on less than 2\$ per day. Evidence indicate that the worst perpetrations of the environmental destruction are the billion richest and the billion poorest people in the earth, even more the bottom billion are more destructive than all four billion people in between.

We take as a basis the article of E. B. Barbier "Natural capital, resource dependency and poverty in developing countries: the problem of 'Dualism within Dualism'"(4, p. 23-59). There are two types of 'dualism' in terms of recourse use within developing countries:

1. The first is concerned within the global economy as far as most low- and middle-income economies are highly dependent on exploitation of natural recourses having primary product exports account for the vast majority of their export earnings where one or two primary commodities make up the bulk of exports. In this case recent evidence suggests that increasing economic dependence on natural recourses is negatively correlated with economic performance.

2. The second is concerned within developing countries as a substantial proportion in low- and middle-income countries is concerned in marginal areas and on ecologically "fragile" land. Therefore households in these lands face problems with land degradation and low productivity as well as trend to be the poorest in the world.

Poor economies are highly dependent on export exploitation for commercial, export-oriented resource-based economic activities where the major investors trend to be relatively wealthier household. This leads to uneven distribution of resource conversion and to uneven economic development in general.

According to E. B. Barbier four key structural features of natural resources use exists in low and middle-income economies, namely:

Stylized fact one: the majority of low- and middle-income countries have resource-dependent economies. For those countries primary product export are one or two main commodities which account for nearly all export earnings. An average primary product export share is 50% and more for low- and middle-income countries, when the two main commodities account for about 60% of main export.

Stylized fact two: resource-dependency in low and middle-income countries is associated with poor economic performance. According to the evidence those countries trend to have lower levels of GDP per capita, higher poverty level (resource-dependency appears to be positively correlated the proportion of the population living in poverty), the average export share of primary commodities in total exports over 1990-1999 appears to be negatively correlated with the real GDP per capita in 1994.

Stylized fact three: development in low and middle income countries is associated with increased land conversion and stress on available freshwater resources. As world population and demand are increasing access to freshwater is of great importance. According to UN the total volume of water on Earth is about 1.4 billion km³. The volume of freshwater resources is around 35 million km³, or about 2.5 percent of the total volume [7]. World Bank study claims that GDP growth and higher incomes in developing countries are associated with better sanitation and improved water supply, as well as investments in cleaner technologies.

Stylized fact four: a significant share of the population in low- and middle income economies is concentrated on fragile land. According to World Bank since 1950 population on fragile lands in developing countries has doubled, while one-quarter of the people in developing countries (almost 1, 3 billion) survive on fragile land (most in Latin America, Africa and Asia). Those people mostly live in extreme poverty on less than 1\$ per day.

Taking into account all above mention factors, important is to describe the pattern of today's world realities where large countries with shrinking stores of natural resources and relatively large populations (such as China, India, South Korea, and the Gulf states) are purchasing huge parcels of fertile farmland in Africa, South America, and South Asia to grow food for export to the parent country [3]. For example, nearly 60 million (ha) of African farmland – roughly the size of France – were purchased or leased in 2009. According to C. Daggett those land grabs are more about the freshwater than the food.

Core of the problem

In this analysis we take into account heavily indebted poor countries (HIPC), which were initiated by the International Monetary Fund and the World Bank in 1996, which are a group of 40 developing countries with high levels of poverty and debt overhang.

Table 1

Export structure by product of 40 developing countries of the world

№	Country	Export structure by product			
		Main export commodities	Value (f.o.b., thousands of dollars)	As percentage of country total	As percentage of world
1.	Afghanistan	Fruit nut (exc oil), fresh or dried	76 361	20.7	0.10
2.	Benin	Cotton	313 872	19.4	1.4
3.	Bolivia	Natural gas, liquefied or not	3 474 137	43.5	1.38
4.	Burkina Faso	Cotton	633 948	41.1	2.82
5.	Burundi	Coffee and coffee substitutes	61 448	55.3	0.17
6.	Cameroon	Crude petroleum & bituminous oil	1 546 612	36.5	0.11
7.	Central African Republic	Wood in rough or roughly squared	33 577	22.8	0.23
8.	Chad	Crude petroleum & bituminous oil	3 437 044	89.9	0.24
9.	Comoros	Ships boats floating structures	9 990	43.6	0.01
10.	Congo	Crude petroleum & bituminous oil	8 006 391	79.6	0.56

11.	Côte d'Ivoire	Cocoa	3 876 622	36.3	17.85
12.	Democratic Republic of the Congo	Copper	2 030 079	35.6	1.45
13.	Eritrea	Gold non-monetary excluding ores	192 092	92.5	0.1
14.	Ethiopia	Coffee and coffee substitutes	773 007	31.3	2.1
15.	Gambia	Fruit nut (exc oil), fresh or dried	13 343	20.6	0.02
16.	Ghana	Cocoa	3 984 797	38.6	18.35
17.	Guinea	Aluminium ore concentrate alumina	598 512	38.7	4.08
18.	Guinea-Bissau	Fruit nut (exc oil), fresh or dried	164 380	90.1	0.2
19.	Guyana	Gold non-monetary excluding ores	402 585	40.6	0.21
20.	Haiti	Articles of apparel nes	352 124	52	0.26
21.	Honduras	Articles of apparel nes	1 204 185	18.6	0.21
22.	Kyrgyzstan	Gold non-monetary excluding ores	190 446	10.2	0.1
23.	Liberia	Natural rubber, latex, gum, etc	115 939	38.7	0.36
24.	Madagascar	Articles of apparel nes	176 475	13.2	0.13
25.	Malawi	Unmanufactured tobacco and refuse	612 124	49.1	5.25
26.	Mali	Gold non-monetary excluding ores	1 326 891	60.5	0.7
27.	Mauritania	Iron ore and concentrates	1 158 613	47.7	0.93
28.	Mozambique	Aluminium	1 266 174	43.3	1.09
29.	Nicaragua	Articles of apparel nes	294 568	14.3	0.22
30.	Niger	Uranium&thoriumoreconcentrates	248 240	21.7	34.98
31.	Rwanda	Base metal ores & concentrates nes	110 280	30.9	0.35
32.	Sao Tome and Principe	Cocoa	5 999	50	0.03
33.	Senegal	Heavy petroleum & bituminous oil	536 557	22.8	0.07
34.	Sierra Leone	Pearls, precious semiprecious stone	86 157	24.9	0.06
35.	Somalia	Live animal excl. fish & crustacean	235 075	48.6	1.16
36.	Sudan	Crude petroleum & bituminous oil	8 701 343	75	0.61
37.	Togo	Cocoa	171 814	17.2	0.79
38.	Uganda	Coffee and coffee substitutes	551 637	20	1.5
39.	United Republic of Tanzania	Gold non-monetary excluding ores	689 642	15.7	0.37
40.	Zambia	Copper	5 557 790	68.5	3.97

Source[4]

The data presented here leads us to the judgment that often developing countries depend on a single commodity for their merchandise export revenues. In some cases those commodities conduct more than 90% of a country total export share. Talking about agricultural primary commodity, they can be characterized by declining trend of real prices and relatively high price volatility because of recurring supply/demand imbalances.

According to E. B. Barbier the main paradox in this issue is despite the importance of natural capital for sustainable economic development, increasing economic dependence on natural resource exploitation appears to be a hindrance to growth and development in today's poor economies. The explanation of this problem hides in failed policies and weak institutions. Many economists, in particular the 2012 book by D. Acemoglu and J. A. Robinson's "Why Nations Fail", answer this question in the same way. Basically, the openness of a society, its willingness to permit creative destruction, and the rule of law appear to be decisive for economic development. According to Gary S. Becker, Nobel laureate in economics, D. Acemoglu and J. A. Robinson convincingly show that countries

escape poverty only when they have appropriate economic institutions, especially private property and competition. Moreover, countries are more likely to develop a right institution when they have an open pluralistic political system with competition for political office, a widespread electorate, and openness to new political leaders. This intimate connection between political and economical institutions is the heart of their major contribution, and has resulted in a study of great vitality on one of the crucial questions in economics and political economy [2, p. 1].

Conclusion

The exchange of goods, services and capital between countries is based on the interaction of modern globalized world economy. Such integration is manifested in all spheres of public life, bring characterized by reciprocity and dependence on one side and asymmetric access to global markets, on the other. Still, currently world market is developing, even though it is represented by dynamic growth and competitiveness, the low level of life in developing countries remains to be a source of conflicts in the world.

The problem of resource dependency is urgent because economic dependence appears to be a hindrance to growth and development as far as resource dependent countries with primary product export are economies with the most poor performance. Moreover, those are the people who live on a fragile land, have no available fresh water and appears to be the one who live on less than 1\$ perday.

According to M. P. Todaro and S. C. Smith six policy options are open for less developed countries[5, p. 512]. We consider some of them extremely important in today's world realities, namely:

- Proper resource pricing meaning government pricing policy which can exacerbate resource shortages of encourage unsustainable methods of production.
- Community involvement meaning that when poor communities truly benefit from public-works programs, residents are often willing to contribute much or all of the program costs.
- Clearer property rights and resource ownership meaning legalization of tenure can lead to improvement living conditions for the poor and increase in agricultural investments
- Programs to improve the economic alternatives of poor which might be investments in irrigation and sustainable farming techniques, the use of alternative fuels, creation of barriers to erosion. Unfortunately, economic costs for these policies might be too high. Alternatively, government can focus its program on making credit and land-augmenting inputs accessible to small farmers. For example, building rural infrastructure could create local jobs, alleviate population pressure on land, stimulate rural development and reduce rural-urban migration.
- Industrial emissions abatement policies which include taxation of emissions, tradable emissions permits, quotas, standards, as well as tax credits and subsidies specifically tied to purchase of development of pollution abatement technologies.

Developed countries can improve the environmental of development of developing nations in following ways:

- Trade policies. According to UN, in 2001 annual losses for LDCs due to lack of access to the goods market of developed world is more than double of the total amount of aid received in 2000 from all sources.(including lack of access to capital and labor market – annual losses is \$500 billion). So eliminating trade barriers could significantly reduce the level of absolute poverty. As well as subsidizing agricultural sectors is also a source of penalizing developing countries. Wider access to world market could reduce the dependence and exploitation of developing countries.

- Debt relief. For developing countries debt is an obstacle for domestic social programs. Debt forgiveness might be solution in some cases, for example debt-for-nature swaps.

- Development assistance might include a variety of programs to alleviate poverty, provide services and promote sustainable patterns of production.

To sum up we can state that effectiveness of institutional mechanism in the country has a huge effect on the economic development. Establishing pro-growth political institutions can reduce the scope and depth of recourse curse phenomenon, which depends on the quality of democracy and the development of civil society and political culture in the state.

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QUO VADIS? ІНТЕРФЕЙС МІЖ ЕКОНОМІЧНИМ РОЗВИТКОМ ТА ЕКОЛОГІЧНОЮ СТІЙКІСТЮ В ГЛОБАЛЬНІЙ ПЕРСПЕКТИВІ

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У статті розглянуто зв'язок між економічним розвитком та екологічною стійкістю. Основна увага приділена проблемі прокляття ресурсів, оскільки, не зважаючи на важливість природного капіталу для сталого економічного розвитку, збільшення економічної залежності від експлуатації природних ресурсів є перешкодою для прогресу країн, що розвиваються. Ефективність інституційних механізмів в державі є ключовим інструментом на шляху до економічного зростання.

Ключові слова: економічний розвиток, екологічна стійкість, нерівномірність економічного розвитку, залежність від сировини, інституції, прокляття ресурсів

QUO VADIS? ИНТЕРФЕЙС МЕЖДУ ЭКОНОМИЧЕСКИМ РАЗВИТИЕМ И ЭКОЛОГИЧЕСКОЙ УСТОЙЧИВОСТЬЮ В ГЛОБАЛЬНОЙ ПЕРСПЕКТИВЕ

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В статье рассмотрена связь между экономическим развитием и экологической устойчивостью. Основное внимание уделено проблеме проклятия ресурсов, поскольку, несмотря на важность природного капитала для устойчивого экономического развития, увеличения экономической зависимости от эксплуатации природных ресурсов является препятствием для прогресса в развивающихся странах. Эффективность институциональных механизмов в государстве является ключевым инструментом воздействия на пути к экономическому развитию.

Ключевые слова: экономическое развитие, экологическая устойчивость, неравномерность экономического развития, зависимость от сырья, институты, проклятие ресурсов