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CYRUS CHRONICLE JOURNAL (CCJ):



Contemporary Economic and Management Studies in Asia and Africa



An imprint of the CYRUS Institute of Knowledge (CIK)



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Contemporary Economic and Management Studies in Asia and Africa

The flagship journal of the CYRUS Institute of Knowledge

**THE CYRUS CHRONICLE
JOURNAL (CCJ)**

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Purpose:

The CYRUS Institute of Knowledge (CIK) Journal is a refereed interdisciplinary journal. The editorial objective is to create opportunities for scholars and practitioners to share theoretical and applied knowledge. The subject fields are management sciences, economic development, sustainable growth, and related disciplines applicable to the Middle East, Central Asia (MENA) and North Africa. Being in transitional stages, these regions can greatly benefit from applied research relevant to their development. **CCJ** provides a platform for dissemination of high quality research about these regions. We welcome contributions from researchers in academia and practitioners in broadly defined areas of management sciences, economic development, and sustainable growth. The Journal's scope includes, but is not limited to, the following:

*Business Development and
Governance*

Entrepreneurship

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*International Business and Cultural
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Authors are responsible for the views expressed and the accuracy of the facts provided. Authors' opinions do not necessarily reflect the position of the CYRUS Institute of Knowledge, the Editor, or the Editorial Advisory Board of **CCJ**.

Editorial Advisory Board Members:

Professor Tagi Sagafi-nejad is the editor of **CCJ**. Dr. Sagafi-nejad is ex-editor of International Trade Journal, the author, in collaboration with John Dunning of The UN and Transnational Corporations: From Codes of Conduct to Global Compact, (2008) and "The Evolution of International Business Textbooks" (2014). He was the Radcliffe Killam Distinguished Professor of International Business, founding Director of the PhD Program in International Business, and Director and Center for the Study of Western Hemispheric Trade at Texas A&M International University (2003-2013). Dr. Sagafi-nejad is well-known internationally and has outstanding credentials to develop The Cyrus Chronicle into a high quality publication. He will be assisted by an editorial board consisting of distinguished members from world-class institutions of higher learning, practice and industry.

Submission Process:

We invite authors to submit their papers and case studies to Editor@Cyrusik.org. We will have a quick turn-around review process of less than two months. We intend to begin with two issues per year consisting of about 5-8 papers and case studies per issue. The first issue is being planned for the fall of 2015. A selected number of papers submitted to the CIK conference will be double-blind reviewed for inclusion in **THE CCJ**. We intend to have special issues on themes that are within the scope of Journal. Also, we will have invited guest issues.

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Background:

This is a historical time for the mentioned regions, and The Cyrus Chronicle intends to offer what is most urgently needed. There is no question that organizations and businesses that are capable of analyzing and applying advanced knowledge in management sciences and development are in high demand, and especially during transitional periods. It is an unusual time in the target regions and the world, a time which requires active intellectual participation and contributions. It is the era of revolution in terms of communication, technology and minds for billions of people. It is a time for intellectuals, entrepreneurs, and philanthropists to help enlighten minds and therefore enrich the quality of life for millions. It is a time to focus intensely on the regions' historical characteristics, achievements, human and natural resources, and its significant deficit in development, management sciences, and democracy. CIK's vision, "to cultivate the discourse on human capital potentials for better living," is the appropriate response to current challenges, and the journal is a platform for sharing the perspectives of scholars and practitioner with a wider audience.

CYRUS associates tend to have a foot in two worlds. First, most of the associates possess a wealth of intellectual and experiential knowledge which is enhanced by their active involvement in business, consulting and scholarly research and collegiate teaching. Second, some associates are sons and daughters of the affirmation regions and possess an ethnic identity, language skills, and the insights only embraced by insiders. Third, most of the CIK board of directors' members and associates are well-known scholars, members of editorial boards of journals, and even editors. CYRUS possesses depth, breadth, and a competitive edge to successfully manage chronicle.

CYRUS is committed to developing knowledge that positively contributes to the life of the world citizens, especially, the target regions. CIK is a charitable, educational, and scientific organization that has been in operation since 2011. It is a secular and nonpartisan organization that has many scholars and practitioner as member.

For more information on the Institute, please contact: Editor@Cyrusik.org; Sagafinejad@loyola.edu; Nasgary@Cyrusik.org. *CYRUS Institute of Knowledge (CIK), Box 380003, Cambridge, MA 02238-0003, USA*

Editor's Introduction

Welcome to the premier issue of *Cyrus Chronicle Journal (CCJ): Contemporary Economic and Management Studies in Asia and Africa*. The journal intends to cover scholarship pertaining to the two vibrant and rapidly growing continents, Asia and Africa. They tend to be either ignored or misunderstood; and there are limited outlets for scholars who work on these countries to share their scholarly outputs. Focusing on these two continents will help researchers from both developed countries as well as these two continents - which together account for the largest portion of the world population and growth. The CCJ intends to fill these gaps. An examination of our mission may shed some light on this question. The primary purpose of the journal is four-fold:

1. To share and promote knowledge of economic, management, and development issues facing countries of Asia and Africa. Focusing on assessment, evaluation, and possible solutions help advance countries in this two continent which has the largest world habitants. Development challenges are global; virtually every country faces problems concerning economic development, sustainability, food and water, population and environmental degradation. Yet no country gains by shunning opportunities that globalization can provide, with the possible exception of a few countries whose leaders lack a full understanding of the opportunities that globalization can offer. To take advantage of such opportunities, knowledge is the primary requisite. And this journal aspires to make a contribution to this body of knowledge.
2. To encourage the generation and dissemination of knowledge by local scholars whose access to mainstream academic outlets may be limited? We know many scholars from academic, public and private sector organizations whose first-hand knowledge of problems and solutions isn't being shared for lack of an appropriate outlet for dissemination. The CCJ may provide an opportunity for spreading such knowledge.
3. To focus on countries that span the northern band of Asia – from China to Turkey – to the northern tier of Africa, areas that have not previously been the subject of much attention. In the past these countries have tended to gain the attention of scholars and the media only in times of manmade or natural crises. But in fact, these nations have many challenges similar to those of others. They wrestle with shortages of food and water and the growth of population and pollution. Although they have educated their own citizens, especially in countries that had been under the shackles of dictatorship for decades, now they have become freer to express ideas in journals such as this.
4. Academic scholarship emanating from the region under the journal's coverage tend to get lost in the academic jungle where the pressure of "publish or perish" leaves behind the younger and less experienced members. This journal will give an opportunity to the scholars with first-hand knowledge of these areas to publish their research and thereby make important contributions to the management and development body of scholarship on which the journal will concentrate. We need to know more about these topics in countries such as Afghanistan, Kazakhstan and Tunisia as well as other countries covered by this journal. The CCJ will provide a platform for established as well as younger scholars who might collaborate with them in their research.

On the journal's operational side, we want to make the publication more accessible to a wide audience across the world, and so, consistent with the 21st century trend toward electronic media, we will publish this journal online. To maintain rigor and originality, articles submitted to the journal will undergo the standard blind review process. Reviewers' anonymous comments are shared with authors, as appropriate.

Submission guidelines and procedures are delineated on the journal's website <http://www.cyrusik.org/research/the-cyrus-chronicle/>.

As the first editor of the journal, I am pleased and proud to accept this challenge. I bring some experience; my first editorial assignment was as an undergraduate at then Pahlavi University in Shiraz, Iran, a top ranking institution in the region. A few students and I founded and published *Danesh-Pajouh* (knowledge seeker). In those days when freedom of expression was severely limited, we managed to publish one issue in March 1965 before the censors put a stop to the enterprise.

Years later, while directing a doctoral program in international business in Texas in the early 2000s, I also was the co-editor - and eventually editor - of the *International Trade Journal* (ITJ) until my retirement in 2013. Under my leadership *ITJ* acceptance fell below 10%.

As editor of the *CCJ*, I hope to accomplish the goals of the journal elucidated above. In the premier issue, we have already reached a threshold of about 20% in acceptance. Still, *CCJ* needs your support and so I ask for your help in the following ways:

1. Contribute articles;
2. Encourage your colleagues to do the same;
3. Spread the word, especially in countries where *CCJ* can be most effective;
4. Cite the articles published in this journal in your own research when applicable;
5. Attend the annual conferences of the CIK (<http://www.Cyrusik.org>) that serve as a spawning ground for articles that may ultimately be published in this journal;
6. Give us your feedback by telling us how we can further promote and improve the journal?

Welcome and thank you.

Tagi Sagafi-nejad, Editor

Natural Resources and Economic Development: The Case of Afghanistan

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Abstract

This paper examines the role of natural resources in the sustainable economic development of Afghanistan. We analyze Dutch disease theory and its implication for the case of Afghanistan. Additionally, we apply the Community Based Natural Resource Management (CBNRM) strategy for effective resource management and avoidance of Dutch disease. CBNRM will benefit all stakeholders by engaging them in the decision-making and implementation process. We describe historical lessons learned are by other countries with abundant natural resources to support sustainable development. We describe various ways in which natural resources can be used to serve the best interest of Afghanistan in general as well as distinct Afghan communities.

Keywords: Natural resources, Extractive industries, Dutch Disease, Community Based Resource Management; Development, Afghanistan.

INTRODUCTION

Afghanistan's untapped natural resources present an opportunity for economic development and for the advancement of regional and international cooperation. However, because of the country's inadequate development planning, not enough research has been conducted to explore its available resources and potential benefits. Evaluations of natural untapped resources are usually conducted by a government in collaboration with experts but because Afghanistan has been engaged in internal and external wars during the past thirty-five years, very few such studies have been conducted. Some initial studies on mining were conducted during the 1970s and 80s which indicated that the country had nearly \$1 trillion USD in untapped mineral deposits. More recent studies indicate that there are more reserves than were previously known. Later assessments have estimated the amount to be nearly \$3 trillion USD (Reuters, October 25, 2010) an amount which could fundamentally alter Afghanistan's economic development path, assuming that strategies for the appropriate allocation of resources for development are initiated. These mineral deposits are scattered throughout the country, with a large segment along the border with Pakistan; this presents security and geographical challenges for building mining infrastructure which must be met.

In 2010, *The New York Times* reported “with virtually no mining industry or infrastructure in place today, it will take decades for Afghanistan to exploit its mineral wealth fully. The country has no mining culture.” One of the missed opportunities of the international community’s involvement in the country during the last decade, is the discovery of Afghanistan’s vast mineral wealth, which could have helped to generate jobs and revenue, and therefore development.

Afghanistan’s newly discovered oil and gas reserves (with an estimate of 315 million barrels of crude oil and 120 billion cubic meters of gas), creates an opportunity for production and export, which could generate much needed foreign exchange. The North Afghan-Tajik Basin and the South Katawaz and Helmand Basin provide the potential for the exploration and development of hydrocarbon. In fact, a number of oil and gas reserves have already been discovered in the North. According to the U.S. Geological Survey and the Afghan Ministry of Mines and Petroleum, the estimated undiscovered oil and gas reserves are much larger than thought, especially in the north and northwest parts of the country. The economic growth and industrialization of Afghanistan also requires the expansion of the electric power generation and distribution system. There is already a huge demand for electricity, and the expansion of various manufacturing sectors will further increase the demand. Afghanistan’s electric power supplies in 2010 were 470 MW, of which 100 MW was imported from neighboring countries (USAID 2010-2013; Da Afghanistan Breshna Sherkat, 2010). Recently, Afghanistan has also begun exploring wind and solar technologies.

This paper evaluates Afghanistan’s natural resources and proposes a strategic approach to exploring resources for advancing sustainable development and avoiding Dutch Disease. Many resource rich countries have been unable to deal with this important issue appropriately. The potential for weakening other segments of the economy is often referred to as “Dutch Disease” because of the upswing in the extractive industries

revenue to the economy. According to our literature survey of scholarly research, there are no studies that have examined this issue for the case of Afghanistan. This paper will offer methods for preventing Dutch Disease in Afghanistan, and provide a roadmap for development using natural resources.

The Community Based Natural Resource Management (CBNRM) strategy by engaging stakeholders actively in the process includes incorporating national and local interest for growth. CBNRM provides a way for diverse (and perhaps competing) parties to work together for the common good. Scholars (Child, 2003; Sebele, 2010; Walle and Asgary, 2014) have shown that nurturing and empowering local governments provides a better outcome and will further help the peoples of Afghanistan to equitably participate in the extraction of their nation’s natural resources. Earlier research in this area has not been adequate, perhaps because the country’s involvement in internal and external wars. This paper intends to fill the gap by providing learning lessons from countries that have used their abundant natural resources for development while avoiding the Dutch Disease fatigue or the “resource curse”. We discuss various ways in which natural resources can be developed with an eye towards what is in the best interest of Afghanistan as a whole, while serving distinct Afghan communities. This approach offers solutions in which all stakeholders can simultaneously benefit. Other important issues such as security, political stability, governance, human resource development, technology, and regional economic cooperation are essential and require in-depth studies but it is not the focus of this study.

EXTRACTIVE INDUSTRIES AND DEVELOPMENT

An extractive industry is defined as “anything capable of being extracted from the earth.” International organizations define extractive industries to include oil, gas and mineral extracts. Energy has been defined as oil and petroleum gas.

The Extractive Industries Transparency Initiative refers to oil, gas, and minerals as extractive industries (USEITI, 2015). Potential oil and gas resources are important parts of Afghanistan's extractive industry. This requires collaboration and partnership of Afghanistan National Oil Company with regional and international oil companies that have vast experience in oil and gas development.

The interaction of the energy sector with the environment should receive serious attention, to avoid the sort of environmental damage that other developing economies (i.e., Nigeria) have encountered in the extraction process. Afghanistan has never possessed heavy industry before and as a result it has little, if any, history of environmental protection. The key question is how this industry and its tangential organizations and companies can be developed in a responsible way while advancing development. It is critical to minimize corruption in this newly explored industry. This will require ethics and social responsibility training for all officials in the government, especially those with ties to the industry. Furthermore, studying how and in what ways the Ministry of Mines and Petroleum can advance regional collaboration includes the assessment and approval process for foreign contractors by the government. Lack of technical capability is a major impediment to Afghanistan's economic development. Development of internal energy resources will need technological know-how, financial support, and development of human resource capabilities. Distribution issues and fundamental policy issues must also be addressed. Pricing policy, public private partnership, contractual agreements with foreign oil companies are among issues that need to be studied in detail.

In addition to its rich extractive natural resources, its location can also serve as a locational comparative advantage, to create a greater impact in the development. Afghanistan can reap benefits from trade between Central Asian countries and the rest of the South Asian Association for Regional Cooperation (SAARC). It is seen as a viable gateway for South Asian countries to access the oil and gas resources of

Central Asian Republics like Tajikistan, Turkmenistan, and Uzbekistan. The mineral deposits in Afghanistan have lured economically and politically powerful neighboring countries like India and China to offer mining contracts.

Regional economic agreements are expected to boost the economies of all countries involved. Economic collaboration is also potentially good for peace and security in the region. For example, Afghanistan should consider participating in the current discussion between Iran and Pakistan on development of the gas pipeline between the two countries, with potential extension to India. It should take into account the cost-benefit analysis, both economically and politically.

NATURAL RESOURCES CURSE, ALSO KNOWN AS DUTCH DISEASE

The term Dutch Disease was first coined by economist in 1977 when describing the events associated with natural gas deposits in the Netherlands, discovered in 1959 and developed afterwards. Events associated with this economic bonanza suggest that such rapid development might have had a dampening effect on other aspects of the Dutch economy. This resource curse, discussed among economists and policy-makers as a concern for countries with large endowments of natural resources, such as oil and gas and can result in worse performance in terms of economic development and good governance than in countries with fewer natural resources (Humphreys et al., 2014). The Dutch Disease, volatility, unequal expertise, corruption, retarded economic performance, and poor policies, are forces that work against the success that one would expect to come from natural resource wealth. Diamond and Mosbacher (2014) discuss what causes the resource curse and suggest a strategy to combat it. They explain how, "...oil booms have poisoned the prospects for development in Africa's oil-rich states", citing the case of Uganda. The surge of money from these extractive industries can cause inflation, distort exchange rates, and undermine the

competitiveness of traditional export sectors such as agriculture.

Scholars (Cullen and Noland, 2014; Durns, 2014; Diamond and Mosbacher, 2014; Humphreys et al. 2007) have discussed the “paradox of plenty” and “Dutch disease” suggesting these can create an economic and cultural atmosphere that does not advance development and, if not strategically addressed, could create comparative disadvantages for the country. Cullen and Noland (2014) state that, “Dutch Disease suggesting that refers to the tendency of real exchange rates to appreciate following the discovery of a valuable commodity and rendering traditional industries internationally uncompetitive” (30). Some scholars argue that having such a wealth of natural resources may not necessarily be as much of a positive windfall as it seems. However, others argue, based on economic theory as well as real-world examples, that valuable natural resources may actually hinder long term economic growth due to the negative consequences that may occur in its overall economic performance, domestic policy, and international affairs. By discussing both the immediate and long-term aspects of these negative consequences of a country’s development of its natural resources, better natural resource management can be achieved.

One of the main problems of countries afflicted with Dutch Disease is that domestic prices of goods and services are raised because incomes have not been adjusted accordingly; and therefore the population cannot afford to buy them. This substantial price increase is primarily driven by the fact that the extra currency entering the country from the natural resources exports is converted into local currency considerably swelling the money supply and therefore pushing up domestic prices, thereby resulting in a higher real exchange rate.

After the Netherlands discovered natural gas in the North Sea in the 1970s, the Dutch found that their manufacturing sector suddenly began to perform more poorly than anticipated (Ebrahim-Zadeh, 2003). When a sudden rise in the value of its natural resource exports caused an appreciation

in the real exchange rate. This, in turn, made exporting non-natural resource commodities more difficult and made competing with a wide range of imported commodities almost impossible (Humphreys et al., 2014). The problem is the volatility of income that comes from three sources: variation in rates of extraction, variability in the timing of corporations’ payments to the state, and fluctuations in the price of the natural resources produced (Humphreys et al., 6). This sort of volatility can make it difficult for governments and companies to predict the impact resources will have a nation’s economy.

While many countries have failed to overcome the impact of Dutch Disease, a few such as Canada, Chile, Norway, and Botswana have successfully avoided the potential pitfalls of the resource curse. Canada has an abundance of natural resources and is a major net exporter of natural gas and coal and holds the world’s second largest oil reserves after Saudi Arabia. Durns (2014) states that Canada also has a major mining sector and is “the third largest producer of primary aluminum and diamonds and in the top five for cadmium, molybdenum, nickel, platinum group metals, salt, titanium concentrates, elemental sulfur, and uranium”. In the case of Canadian extractive industries, there is transparency and active engagement of key stakeholders. The country’s provincial bodies are involved in royalties, taxes, incentives, permits and licensing for oil and natural gas, and the National Energy Board oversees regulation, and ultimately reports to Parliament.

Chile, controls an estimated 20% of the world’s copper reserves and is the number one producer, accounting for 11% of total global production. While the importance of copper to its economy leaves room for susceptibility to commodity booms and busts, Chile has largely managed to overcome concerns that come with non-renewable resource wealth. There is a great degree of transparency in the operations, revenues, royalties, taxes, and other regular reports and the overall costs and benefits of the industry are shared with public.

In the 1960s when it discovered vast reserves of oil and gas, Norway used a novel approach in managing this windfall by extending the benefits of these resources beyond short-term gains. With the mindset of avoiding the resource curse and fluctuation in the commodity market, the government set aside 100% of its oil earnings and only drew down 4% per year to use for public services. This creative approach has avoided the resource curse and encouraged other countries such as Israel, Chile, and Colombia to adopt a similar approach, thus averting wealth concentration, currency appreciation, and mismanagement.

Since 1970 Botswana has become the world's largest producer of diamonds, accounting for, "...three-quarters of its exports and over 40% of its GDP..." Jefferis (2009, 72). In contrast to many other African countries that are resource-rich and prone to conflict and corruption, Botswana has managed to avoid the resource curse. The African Development Bank characterizes Botswana's approach as 'three pronged.' First, the country pursued economic diversification. Second, it divested revenues, seeking to make the economy less susceptible to the fluctuations of global markets. Third, it invested its surplus revenues.

Doraisami (2015) discusses the case of Malaysia and its resource curse caused by its oil exploration. In 1974, the Malaysian government established the Petroleum Development Act (PDA), aiming to establish an institution that would manage and control oil revenues once they became commercially available. Six years later in 1980, the National Depletion Policy was enacted to limit oil production to less than 300,000 barrels a day. It was initially believed that the amount of oil was limited. However, more reserves were later discovered. Another safety measure was the Investments Promotion Act of 1986 which aimed to ignite the economy promoting foreign investment.

The combination of these various policies, as well as some privatization, led to the growth of a larger middle class in Malaysia. As focus shifted

away from the electronics industry, the economy began to stagnate. Although it was becoming a high-income country, it then moved away from manufacturing and leaned on foreign capital, causing its growth to come to a halt. Although Malaysia avoided the resource curse, it was unable to compete on prices with other countries in the region and fell into "the Middle Income Trap". Even though the country avoided widespread poverty, it was no longer able to reach its "2020 Vision" of becoming a high income country. In many instances unstable and ineffective institutions cause countries to fall under the resource curse. Even though the Malaysian government tried to develop effective institutions at the time its oil was discovered, it was nevertheless unsuccessful in reaching its target of becoming a high-income country.

THE PARADOX OF DUTCH DISEASE: FOUR CASES

Four countries from different regions with different levels of development, cultures, and histories have used various approaches to successfully address the paradox of plenty and the avoidance of Dutch Disease. Learning from their experience may be helpful to Afghanistan. Transparency and the active participation of stakeholders such as central and local governments are key success factors. Providing detailed explanations to the public about operations, revenues, royalties, and taxes will build citizens' trust in the government's rational management of natural resources and will likely reduce corruption. The central government will oversee regulation by planning for royalties, taxes, incentives, permits and licensing while allowing regional governments and local communities input and representation in the process. When these local governments and communities are thus directly involved they have a higher stake in acquiring benefits such as local training and employment. Ultimately Parliament will oversee any reports submitted on these ongoing activities.

This kind of approach is based on a strategy known as Community Based Natural

Resource Management (i.e., Child, 2003, Sebele, 2010, Walle and Asgary, 2014). This model encourages governments to collaborate and cooperate with local people by sharing decision-making authority regarding a region's assets. The government or outside authority grants local people a degree of decision making authority over assets adjacent to their communities, and allows them to benefit from these assets. This can lead to a win-win situation in which all stakeholders will benefit and become more willing to cooperate with each other. CBRM offers a means to reduce tensions between local people and powerful forces like the government and thereby find a more coordinated, sustainable, and equitable approach to managing resources and assets.

IMPLICATIONS OF EXTRACTIVE INDUSTRIES

An examination of the above four countries with abundant natural resources provides guidelines for suitable and strategic usage of the resources to have a sustainable development and avoid the resource curse.

Graph 1 shows a model which is based on United Nations Conference on Trade and Development (UNCTAD, 2007) which shows the economic, environmental, social and political impact of the Afghan extractive industries. The macroeconomic impact of investment in these industries has direct and indirect economic implications. While the inflow of capital, technology, know-how, exports, and government revenues are the most prominent and direct economic gains, employment from the extractive industry is likely to be limited due to its use of capital intensive or labor saving technologies. However, indirect economic benefits such as market linkage and infrastructure development provide some long-term gains that influence the macroeconomic footprint. Depending on the type of minerals extracted, the technology used, the scale of the extraction activities, and the project

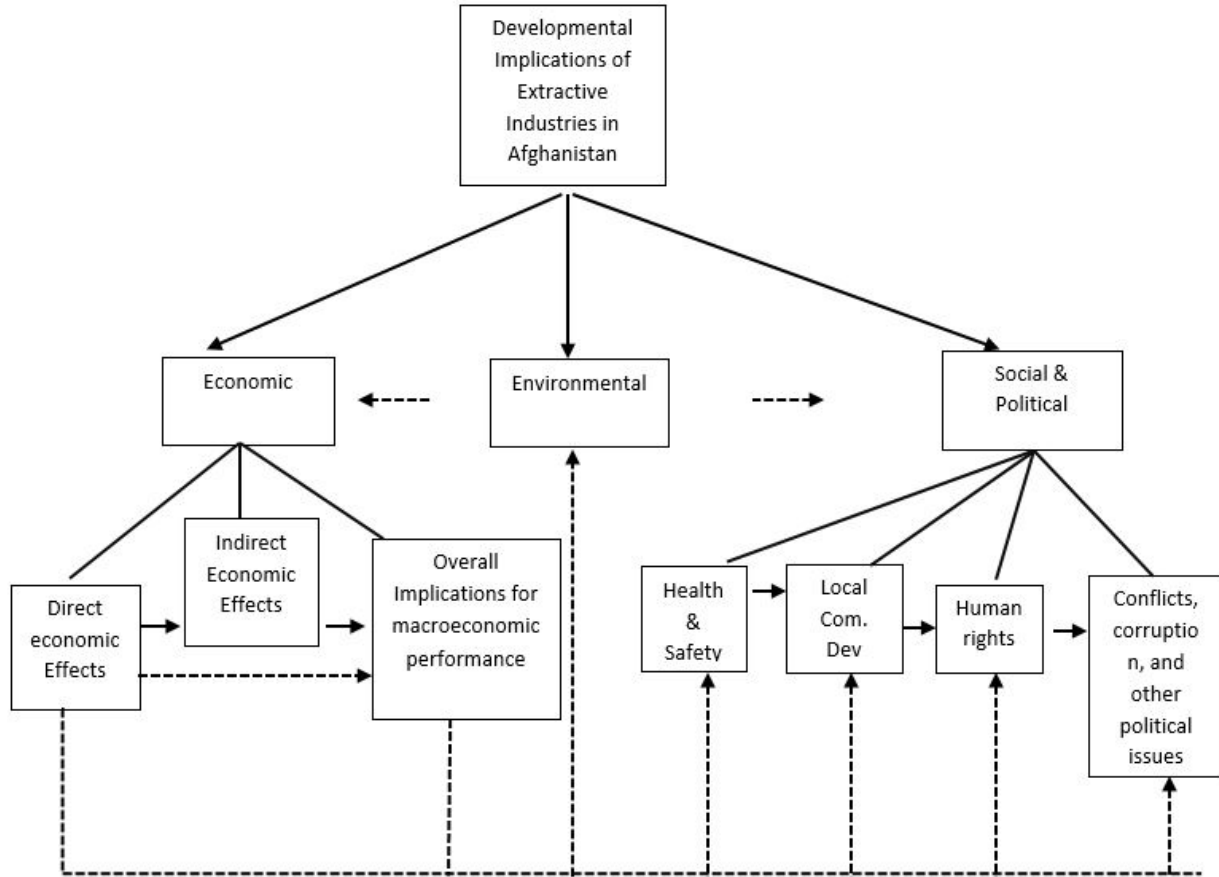
locations, the environmental implications of investment in this industry may differ. Extractive projects close to urban settlements, wildlife habitats, and watersheds tend to create more negative impact. In addition to the political corruption that can cripple almost every aspect of the industry and the overall economy, health and occupational safety is another important social issue for extractive industries. For example, mining-related activities can pose significant health hazards although technological improvements are gradually reducing these effects.

The violation of human and labor rights poses another potential problem. Other difficult issues that must be grappled with are loss of land and incomes without negotiation and/or adequate compensation, forced resettlement, and the destruction of ritually or culturally significant sites without consultation or compensation. However, many of these problems can be avoided by promoting local community development through investment in local social infrastructures such as health and education. Countries such as Afghanistan should give serious attention to the environmental impact of extractive industries in advance of exploration and expansion by considering the negative environmental effects of those.

The social and political impact of extractive industries are also huge and must be taken into account because good governance and full transparency in the implementation process are essential to a good outcome.

These ideas could be applied to the case of Afghanistan if special attention is given to three areas, especially after decades of warfare and instability.

Graph-1



Firstly, Afghanistan has a decentralized and weak central government. Secondly, there is generally a diminished level of human capital. Thirdly, there exists a dominant culture of corruption and poor governance. In order to address these issues, we propose active stakeholder participation in the process of developing its extractive industries.

The engagement of key stakeholders such as the central as well as local governments and communities in decision making and enforcement is required in order to succeed in the appropriate use of the output of extractive industries and in minimizing corruption. In addition to the central government as the primary stakeholder, active

engagement of local governments is also essential for sustainable extraction as well as for security.

COMMUNITY-BASED NATURAL RESOURCES MANAGEMENT

The application of the Community Based Natural Resource Management model is appropriate for Afghanistan to increase the potential success of the extraction process. And the allocation of significant resources for direct and indirect human resources development is necessary to ensure sustainable development.

The concept of “Community Based Natural Resource Management”, involves a wide range of governmental strategies that provide local people with a greater degree of self-determinism and active engagement in decision making. CBNRM (i.e., Child, 2003; Sebele, 2010; Walle and Asgary, 2014) includes governments granting concessions and thus providing economic benefits to locals in order to enlist their cooperation and support. It does so by (1) including locals in the decision-making process while (2) allowing them to benefit from the resources of their home territory.

The leaders of national governments seek centralized authority to effectively implement strategies that are coherent, consistent, informed, and intended to achieve the priorities of the state. Policy makers and investors who collaborate with them are often members of the elite and not linked to those directly impacted by such extractive resources development projects. Therefore, it is likely that national and corporate priorities may differ from the desires of local people who are more directly impacted by decisions of the central government. Over the years a common problem recurs in many countries when central governments make decisions which ignore the concerns, perspectives, and interests of the local populations.

To alleviate this inequitable situation, CBNRM strategies have been developed to more effectively enlist the cooperation and trust of local leaders. Therefore, CBNRM advocates stakeholder engagement rather than “top down” controls by governmental bureaucracies. Decisions once made by the government can be replaced with greater collaboration between the government and those who live in the vicinity of the extractive industries - a “co-management” Process.

While this arrangement can be a positive step forward, Berkes and Preston (1991) warn that in order to achieve a better outcome, participants need to have mutual respect and trust. The aim of CBNRM is to concurrently serve local people in addition to a national economic development

strategy by empowering communities to work with public sector officials for their mutual benefit. While the government has the ultimate authority to decide how the environment is used, its “top down” leadership can be supplemented with “bottom up” decision-making by those who live nearby.

CBNRM also permits local people to reap the benefits of their country while simultaneously acting in ways that support and reinforce national policies. This decision-making mechanism encourages the collaboration of different (and potentially competing) stakeholders to work together to achieve a common goal. Although governments may be the ultimate authorities and decision makers, they can embrace local communities as partners thereby empowering them. Application of this model to the case of Afghanistan can be beneficial by providing a more positive outcome while also reducing the likelihood of Dutch Disease.

EXTRACTIVE INDUSTRIES AND JOBS CREATION

Job creation in the extractive industries is achieved through three main channels: direct, indirect, and induced (World Bank 2012). The direct channel is related to the activities in the process of extraction. Based on the records of several developing countries (Table -1), a small number of jobs are created in the early phase of exploration and appraisal as well as in the latter phase when extraction begins and capital intensive equipment is used. However, most direct and local jobs in various activities are created at the development and construction stages (World Bank 2012; Wise and Shtylla 2007). Necessary specialists such as geologists, petroleum or mining engineers, metallurgists, quarry and mineworkers and heavy truck or tanker drivers provide direct employment opportunities (World Bank report, 2012). Distributors and suppliers within the value chain are indirect channels of job creation. The degree to which SMEs participate in the value chain determines the number of jobs created. The induced channel of job creation is the

consumer spending of income earned either directly or indirectly from industries and its relevant multiplier effects.

Appendix A (Table 1) shows direct employment during and after construction for different extractive products natural gas, copper, gold, and diamonds in several developing countries. For all cases, the number of direct jobs created in the long term is fairly small (1,000 to 4,500)while the overall number of direct jobs created during the construction phase is large (up to 9,300) but will diminish once construction is finished and the mines and fields become operative.

The earned income from direct, indirect and induced employment can be spent on goods and services (e.g. consumer goods, education, and health services), which in turn creates business opportunities, additional employment, earnings, and spending multiplied throughout the economy. The magnitude of the induced effect depends on earnings from direct and indirect employment and the consumption habits of the country.

Most long terms employment is created in other industries and generated by the revenue from extraction of natural resources. Afghanistan policymakers should focus on investment in education, innovation and technology, infrastructure, small-business development, and modernization of agriculture, to ensure sustainable economic growth. As diversification of the economy is essential to avoid Dutch Disease, it is reasonable to spend about 50% of the annual revenue generated from extractive industries for these development projects; the rest should be invested as a reserve for unanticipated negative shocks in the commodity market (extractive products) and for future generations' development plans. As the economy begins to grow, decision makers should consider reducing the percentage allocated for current development projects. A certain percentage should also be allocated to national defense for a few years to increase stability in the country. Countries that have avoided the resource curse spent significantly less (such as Norway, 4%) on current expenditures. In

Afghanistan strategy plan for development, diversification of the economy (i.e., agricultural, extractive industries, and tourism) is essential for sustainable development and avoidance of Dutch Disease. Of course, advancement of education and development of human capital is a necessary condition for building institutions for sustainable development (Rodrik, 2008)

The creation of sound institutions in a country plays a critical role in high-quality growth and avoidance of the resource curse. Sarmidi, Hook Law, and Jafari (2014) state that, "It is found that economies with abundant natural resources, and at the same time better institutional quality and governance, such as strong democratic accountability, high law and order, lower corruption, or higher integration among government institutions have better economic growth and higher welfare," (195). Countries with high quality institutions like Canada and Norway, have low levels of corruption and avoid civil conflicts, and allocate resources more equitably. Natural resources contribute to economic growth only when there is a certain level of institutional quality (Sarmidi, Hook Law, and Jafari, 2014; Rodrik, 2008; Stiglitz, 2006). Countries with low quality institutions are likely to experience slower economic growth. Therefore policymakers should strive to support and build high quality institutions in the early stages of development. However, economists (i.e., Sarmidi, Hook Law, and Jafari, 2014; Rodrik, 2008; Stiglitz, 2006; Sachs, 2006) argue that if the requisite institutional framework is absent or not accommodative, no matter the resources, the intended results will not be achieved. Low quality institutions can lead to numerous rule changes, corruption, weak law enforcement, volatility and lack of efficiency.

When institutional quality is utilized for the benefit of the economy, the beneficial impact of resource abundance increases revenues. Countries such as the United States, Canada, Norway, and Australia with high quality institutions can attract more industries to the

production process and in turn will increase economic growth.

RECOMMENDATIONS

In this study we discussed principles and offered solutions for developing natural resources by actively engaging stakeholders in the process and allocating funds for projects that leads to a sustainable development. However, implementation of public policies requires stakeholders to develop a deeper understanding of pertinent issues in order to be able to formulate prudent policies. Therefore, we suggest that there be a careful examination of the following issues:

1. Reform laws and regulations in the mining industry;
2. Trim bureaucracies to increase efficiency;
3. Make all contracts transparent and within the guidelines of national and international best practices, including the public announcement of such contracts.
4. Eliminate corruption at all levels and implement a zero-tolerance policy with respect to violators;
5. Identify potential extractive industry jobs that can be created for citizens in both the short-term and long-term, in addition to evaluating the multiplier effects of projects across industries.
6. Support funding generated from natural resources for development of human capital;
7. Ensure that any contract signed with foreign firms has a provision for a high percentage of employment and training of local citizens. Employment in the extractive industries is a good alternative to opium production;
8. Estimate refinery capacity, configuration, and the cost of its development;
9. Study the feasibility of a transportation system and a pipeline network within the country and its neighbors;
10. Consider the financial requirements for developing oil and gas including financial sources from multinational agencies and private ventures.

CONCLUSION

The potential for the development of Afghanistan's from untapped resources is huge and can be a game-changer for rapid economic growth. The country's current political, security, and economic development conditions pose substantial challenges for the development of extractive industries. In this paper we have examined the relevant literature and offered a feasible roadmap for the appropriate use of natural resources to advance development. Based on previous international experiences, we suggested the engagement of key stakeholders through CBNRM to reach a positive and sustainable outcome. Income earned from extractive industries should support diversification of the economy, enhance development, and reduce the likelihood of triggering a downturn in other sectors of the economy and minimize the unintended negative consequences of Dutch Disease.

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APPENDIX A

China's state-owned National Petroleum Corporation (CNPC) signed a \$700 million oil exploration contract with the Afghan government in January, 2010. Mining Minister Wahidullah Shahrani (Jan 10, 2012) hailed the deal as 'historic', saying it was 'the first time that Afghanistan has signed a great contract for the country's oil exploration'. The CNPC formed a joint venture with Afghan partner Watan Group in the northern provinces of Sar-e Paul and Faryab to drill three oil blocks in the Amu Darya Basin, 640 kilometers from the border of China's western Xinjiang Uyghur Autonomous Region, a staging base for Chinese companies to build pipelines through Central Asia.

The project is expected to pay Kabul \$5 billion over 10 years, with 70% of profits from oil and gas sales going to the Afghan government. In addition, CNPC will pay 15% royalties, 30% corporate taxes and rent for using Afghan land. The CNPC's primary aim is to ensure oil supplies to China. The three oil blocks are only 640 kilometers from Kabul has also granted rights to an Indian government-backed steel consortium to develop the Hajigak iron ore deposit between Bamyan and Wardak provinces. With a reserve of 1.8 billion metric tons, it is Asia's largest untapped iron deposit. The consortium plans to spend \$11 billion to develop the mine, including the construction of a steel mill, power plant and transport links. The group also proposes to build a 900-kilometre railway line from Bamyan to Zahedan, across the border in Iran, at a cost of \$4.3 billion, where ore will be transported to India.

In November 2007, a 30-year old lease was granted to the China Metallurgical Group (MCC) for US \$3 billion for copper mining,

making it the biggest foreign investment and private business venture in Afghanistan's history. The Afghan Mining Ministry estimates that the mine holds some six million tons of copper (5.52 million metric tons) estimated to be worth tens of billions of dollars and expected to generate jobs and economic activity for the country. The mining lease holders propose to build a railway to serve the copper mine. But since 2014, MCC has been renegotiating the copper contract with the Afghan government to reduce its exposure to the war-torn country in a move that threatens Kabul's plans to use the revenue generated by its mineral resources. With copper prices falling, the Chinese economy slowing, and security in Afghanistan deteriorating, the company has yet to begin production and, according to mining industry and other sources, no longer wants to abide by the terms of its 2007 contract. The company wanted to renege on building a railway, power plant and processing factory, as stipulated in its deal to mine at Mes Aynak, site of one of the world's biggest copper deposits. According to a source close to Kabul's Ministry of Mines, MCC wanted to renege on paying the remainder of a bonus worth US\$808 million to the Kabul government, having already paid US\$133 million, and also wanted to cut royalty payments currently set at 19.5 percent, about double the world average. MCC was apparently in a position to dictate terms, having secured a 30-year lease on the mine, which contains 5.5 million tons of high-grade copper ore. Copper is currently trading at less than US\$6.60/kg, compared to highs in 2011 of more than US\$9.90. China is estimated to have more than 700,000 tons of bonded copper stocks. The huge investments already made by Indian and Chinese companies reduce the opportunity for others to be engaged.

Table 1: Direct employment during construction phase of extractive industries

<i>Country</i>	<i>Project (sector or resource)</i>	<i>Investment, % of 2010 GDP</i>	<i>Direct employment number (during construction, unless noted otherwise)</i>
Papua New Guinea	LNG Project (natural gas)	237.0	9300 during construction; 1000 afterward*
Mongolia	Oyu Tolgoi (copper, gold)	742	14800 during construction; 3000-4000 afterward
Botswana	Jwareng Out 8 Project (diamonds)	20.2	1000
Papua New Guinea	Ramu Mine (nickel)	19.0	5000 during construction; 2000 afterward
Mozambique	Benga Mining (coal)	13.6	Currently 150; 4500 afterward
Tanzania	Mchuchuma (coal)	12.2	5000
Namibia	Husab Mine (uranium)	11.9	5200 during construction; 1200 afterward
Zambia	Lumwana Mine (copper)	9.3	4700 during construction
Pakistan	Reko Diq Mining (copper, gold)	4.0	2500 during construction; 200 afterward
Peru	Conga Mine (gold)	2.6	6000 during construction; 1700 afterward

Source: World Bank 2012, p.200, table 6.1.

*Note: *This figure indicates the number of direct jobs created in the longer term. Compared to the number of direct jobs created during construction, the figure is very small which indicates that most of the direct jobs created during the construction phase disappear once construction is finished and the mines and fields enter operation.*