A. Introduction

central to the justification of the China-Pakistan Economic Corridor (CPEC). CPEC envisages, among other objectives, an expanded transportation network of roads and railways within Pakistan that will carry both domestic and international goods to and from western China via Pakistan. Much of the enhanced international trade is supposed to pass through the port of Gwadar that is being substantially expanded and upgraded for this purpose. Significant investments have been made in Gwadar in recent years and more are planned.

The city of Gwadar on the Arabian Sea coast is

The port was initially developed through joint investments of USD 240 million by the Governments of Pakistan and China. Ongoing plans involve investments of USD 750 million to expand the port, with funds to be sourced primarily from China. Much of this work is already complete. This investment effort is typically justified on three grounds. First, the port will facilitate trade with a corresponding positive impact on national income and employment. Second, port and industrial park and related activities will generate direct and indirect jobs, incomes and fees¹. Third, portrelated investments will spark economic development for the indigenous or local **Insights for Change**

This note focuses on the third justification.

population of the city and district of Gwadar.

The issue of local development is different from that of national development. It is entirely possible for a large public infrastructure investment to have a substantial national impact but an insubstantial local impact. To put it another way, it is entirely possible for an infrastructure project to succeed on the first two grounds noted in the previous paragraph but to fail on the third. What is a good way to assess potential local impact? While one comes across many claims of potential impact in official statements by national or project authorities, these do not usually specify the data and methods lying behind the claims.2 Furthermore, in most cases, it is hard to distinguish whether national impact or local impact is being discussed. We approach this question using the method of comparison. This requires finding an example of a port project similar to the Gwadar one and examining how local and national impact evolved in that case. The comparator port we use is Prince Rupert on the western coast of Canada. This port was developed in the 1990s using a justification similar to that being used for Gwadar. Since the port has been in operation for many years now, its experience can provide lessons for the Gwadar case.

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B. Learning from the experience of **Prince Rupert Port**

The APGCI

During the 1980s and 1990s, the world witnessed rapid growth in trade between North America and Northern Asian countries

including China, Japan and Korea. As a

participant in this growth, Canada perceived an opening for a potentially bigger role in trans-Pacific trade because of its unique geographical position: its western coast was at the shortest distance by sea from North Asia (see map below). Accordingly, Canadian authorities launched what they called the Asia Pacific Gateway Corridor Initiative (APGCI) in October 2006. The aim was to create a multimodal transport system originating with a new port on its western coast that would make it an attractive choice for international trade between North America and North Asia. The project attracted public and private

The staging area for the APGCI was the British Columbia province of western Canada and a major node was the city of Prince Rupert, about 800 kilometers north of Vancouver. While sparsely populated and remote, Prince Rupert had a deep-water harbor accessible to

investment of roughly \$3.5 billion. Sub-

projects included new port facilities, road and highway improvements, bridge expansions, rail/road grade separations, short sea

shipping and regional traffic management.

ships all year round. The idea was to build a major container port here that, together with new road and rail investments, would channel trans-Pacific trade into and out of the North American heartland through a new northern transport corridor. The Port of Prince Rupert container terminal opened in September 2007. Over time, separate terminals were built to accommodate trade in ore, grains, and general cargoes. **Figure 1: Trans-Pacific Port Distances**



Insights for Change city and Gwadar. On the positive side, both are

deep-water ports with good and open access

to international shipping lanes. On the

negative side, both ports are remote with

respect to big cities and road transport

networks in their own countries and are

located in sparsely populated and

economically depressed areas with poor access to education and health facilities. These similarities make Prince Rupert a good case to use for an assessment of the potential for Gwadar to benefit from CPEC related investments. **Estimates of impact** An economic impact study conducted in 2019, about 13 years after the commencement of investments at Prince Rupert port, estimates the economic impact of port operations as

providers to the port industry. Induced employment is measured as the employment

created as a result of the expenditures by individuals who are directly and indirectly **Prince Rupert Local Health Area: population** 25000 20000 15000 Mifflin Plan 10000 5000 997

A sense of disappointment and unease is

evident as well in information available from

local and social media. Local residents have

some local infrastructure, such as small dams,

local communities and that such funds have

grown since 2010. Provincial authorities draw

attention to the British Columbia Jobs Plan, a

project aimed at creating jobs in the region in

consultation with key leaders from industry,

labor, First Nations and community

development organizations. A Community

Investment Fund was established in 2009 and

has since made modest contributions to local

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employed by the port. Employment and earnings have risen since 2009 when the first impact analysis was done. To put the current numbers in context, Canada's GDP in 2019 was \$1742 billion and total employment level was 18 million. Broadly speaking, the Prince Rupert Port is considered to be a successful infrastructure project judged in terms of

overall economic impact. But what about its local impact? Has the local population of Prince Rupert and its environs benefited from this project? There is some

evidence to suggest that the local outcome

3600 are considered direct, 2600 are indirect and 1800 are induced. Indirect employment is measured as the number of people working in

industries that supply to and are service

generating Canadian \$1.3 billion in economic

activities per year from 8000 jobs of which

has been disappointing. The most revealing bit of information about local area impact comes from demographic sources. As an economically depressed area, Prince Rupert had been experiencing stagnation in population growth since 1986 and a decline since 1996. This trend was expected to moderate or reverse once the new investments were launched in 2007. However, that did not happen. Between 2007 and 2014, the population of the Prince Rupert area continued to decline as shown in the graph below. More people left the area than came in.

Moreover, it was mostly younger people who migrated out, leaving the proportion of elderly higher than before. Figure 2: Population Trends in the Prince Rupert Area Skeena Cellulose Mill closes Softwood Lumber Dispute (anti-dumping) Fairview Container Terminal opens 2002 2003 2007 2008 2009 2010 2011 2012 2013 2013 2006 2001 2005

local roads, sewage facilities and school

buildings. As it became clear that local impact

on jobs and incomes had been minimal, port

of port profits are invested into developing

Highway, was upgraded to accommodate

heavier traffic. Within Baluchistan, Gwadar is

at a distance of 1100 kilometers by road from

the capital city, Quetta, involving travel time

of over 13 hours. Economic activity in Gwadar

is limited in value and diversity, which is not

surprising given its remoteness and small

population. The economy continues to be

dominated by agriculture and fishing but it is

thought that many new jobs have emerged in

the construction sector in recent years. The

construction sector may well have become

the second largest employer in the district of

Gwadar though there is no recent survey of

complained about pollution. The local press and city authorities emphasized alternatives, such as expanded community development has reported the finding of traces of lead in the drinking water. Complaints are aired resources. The Annual Report 2014 issued by routinely about the unsatisfactory state of the Port of Prince Rupert noted that a portion

(Pacific Salmon fisheries)

966 666

000

projects. Projects relate to the improvement of healthcare, education, environment, sports, recreation, performing arts, and other needs of the community. While individually small, these projects help make a difference to the quality of life for residents (via waterfront walking trails, community sports centers, new lighting, resurfacing of small roads, and recycling facilities). C. Application to the case of Gwadar

The general literature on the economics of

ports and the specific case of Prince Rupert

suggest that modern port-based development projects do not typically

generate large local area impacts in terms of employment and value-added. Jobs created by such projects tend to involve medium to

high-level skills. If such skills are available

locally, the local area benefits; otherwise, migrants from more distant areas take the new jobs. In such a context, vocational training projects can help in building medium level skills. At the same time, community development projects can help build a favorable context for such projects even when the local area economic impacts are limited. To what extent do these lessons apply in the context of Gwadar, a small, remote port city with limited economic activity? The entire district of Gwadar has a population at around 264,000 persons (based on 2017 Census) with 162,000 classified as urban and 102,000 as rural. The city of Gwadar, which is more

relevant for our purposes, has a population of only around 85,000 persons. A population of

this size makes Gwadar a small town not just

for Pakistan but also for Baluchistan. The

remoteness of the city may be judged from

the fact that it is located at a distance of 477

kilometers from Karachi, which is also the nearest big city. Access to the city has

improved in recent years as a major highway

linking it to Karachi, the Makran Coastal

Insights for Change entire district at the high end and only 23 basic health units at the lower end. This also puts the district in the bottom quarter of all districts in Pakistan in terms of health care personnel and facilities. About two thirds of children under 5 years of age are underweight. This suggests that the population of Gwadar is likely to face productivity issues related to health and nutrition. The above suggests that the indigenous population of Gwadar is not well-placed to benefit from the jobs that are most likely to be associated with the ports and roads investments that have taken place already or the ones that are projected for the next decade. So what can be done in the short to medium run? In capacity contexts such as the ones faced by Prince Rupert and Gwadar,

public policy usually turns to such

(a) investments in vocational training for local

(b) investments in community development

The first are already under consideration in

the Gwadar case. For example, there are

plans in place to provide vocational training

(for electricians, welders, plumbers, automotive mechanics and other similar

improving the lives and livelihood opportunities of low-income groups. The overall impression one gets is that the plans in place for vocational training and community

development projects are modest.

impact on national employment and income and less in terms of impact on local areas and indigenous populations. (b) Modern port facilities generate demand

employment and industry to establish this point conclusively. International literature suggests that port investments have a bigger multiplier impact in the local area if local residents are able to take many of the jobs created by such investments. The ability of local residents to take the new jobs depends on how skilled

they are to begin with. This, in turn, depends

on the education and health characteristics of

With regard to education, data available from government sources (PSLM, 2012-13) shows

that only 50% of the eligible population is

enrolled in secondary schools and only 50% of the population aged 15 years and above is

literate. This puts Gwadar in the bottom

quartile of Pakistani districts in terms of

education and literacy. There are very few

private schools and most children are enrolled

in public schools. About 25% of children aged 5-14 are classified as out of school. Data on

the quality of education show that the districts children lag the rest of Baluchistan. For

example, only 4.2% of Grade 5 students could

do a Grade 2 level division problem in

arithmetic in Gwadar whereas the

the local population.

comparative percentage for all of Baluchistan was 24% (ASER, 2014) Furthermore, Baluchistan tends to lag the rest of the country in education quality. All this suggests that a large proportion of the residents of Gwadar district are unlikely to have the skills that will be in demand once the port facilities expand and a larger volume of trade ensues. With regard to health, the district has only 9 doctors and 2 nurses per 100000 people. As of 2011-12, there were only 3 hospitals in the

for medium and high skills. The local area

employment impact depends in large measure on whether such skills are available

in the local area. If they are not locally

available, they will be imported from other

(c) Where such skills are not readily available among the indigenous population, they can

be developed over time through educational

(d) The Gwadar area does not currently have

an indigenous supply of the sorts of skills

needed to fill the jobs being generated by the

transportation investments being made there,

other than lower level skills associated with

certain types of construction activities.

and vocational training systems.

parts of the country.

(f) Planned interventions in the education and vocational training of Gwadar natives are of modest scope and ambition at present. They

will need to be scaled up considerably if they

are to offer a reasonable prospect of

(g) While Gwadar has the potential to become

a commercially successful port, it will take

many years for it to generate significant jobs

One should not be too concerned about the

initial divergence of national and local area

impacts of large investment initiatives. This is a normal part of the development process

and incomes for the indigenous population.

enhancing the skills of the local population.

initial stages but local outcomes can be improved over the longer turn through supportive public investments in education and health and training. The key public policy implication is that national, provincial and local governments must cooperate to ensure the delivery of high quality education, health and training services that bring about

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middle skill professions). The Government of China has offered to fund this through projects worth \$10 million. However, not much information is available about new community development initiatives aimed at

interventions as

residents and

projects.

D. Conclusions The findings of the review carried out in this study may be summarized as follows: (a) New port and port expansion projects are typically more justifiable in terms of positive

development trajectories.

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Haider in The News, November 28, 2017)

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28, 2017)

¹Pakistan will get 9 percent of the gross income of Gwadar Port and 15 percent of that of the Free Zone. China will build and operate both facilities using its own funds. This is similar to the terms of a previous agreement with the Port of Singapore Authority. (Source: Mehtab

²A recent statement by the Chairman of the CPEC Authority claims that, once completed, the Gwadar Port and Gwadar Free Zone projects would generate \$10 billion worth of economic activity per year.

³In November 2017, it was estimated that about 20,000 Chinese nationals were employed as technicians and supervisors in CPEC projects. (Source: Mehtab Haider in The News, November

(e) In the short run, these middle level jobs will likely be taken by migrants from other part of the country. In projects managed and run by the Chinese, it is reported that skilled jobs are being done by Chinese nationals³.

which tends to be unbalanced and uneven (across regions and income groups) in its convergence in local and national

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