

Chapter 11

Minerals and Fisheries in the Arctic: A Geo–Economic Comparison of India and China

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ABSTRACT

The chapter focuses on the revealed comparative advantage (RCA) that India and China may have (or not) with the Arctic region vis-à-vis certain marine and mineral resources. The outcomes will indicate where and how India and China could look to maximize trading potential, other than natural gases. The study applies a multi-country and multi-commodity Ricardian trade model and utilizes the Balassa Index to examine the revealed comparative advantage of select fish and minerals available at the Arctic. The study finds that there is considerable comparative advantage that the Arctic enjoys in terms of export of salmon/trout/cod and palladium vis-à-vis India and China. India and China both have a lot to gain by positively contributing towards intensification of partnerships among the governments for sustainable management of the resources. The focus should be on effective cooperation among the states in addressing illegal, unreported, and unregulated (IUU) fishing and to promote human development by supporting and safeguarding the small-scale actors in both mining and fishing sectors.

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INTRODUCTION

In the last couple of autumns, the Arctic belt has fallen into the uncharacteristic darkness from the viewpoint of climate change. Many experts have termed the condition, a “twilight zone”. In a very short time, it was observed that the ice caps were shrinking when they were supposed to increase in size. Temperatures soared to over 20°C above the usual and due to melting ice caps, several man-animal conflicts were frequently witnessed. Given the strange turn of climatic changes, scientists are now worried about progressively worse summers in the future (Rosen, 2017). In fact, as recently as 2007, experts had predicted that by 2030, the Arctic region might be rendered ice-free due to the global warming (The Telegraph, 2010). While this phenomenon is frightening and has many wide-ranging and unpleasant consequences for the planet and its inhabitants, it is also true that melting ice caps has given rise to the renewed interest in trade and economic activities in the region by the countries that constitute the Arctic belt and their trading partners. Greater scope for maritime activity, tourism, mining, and fishing will soon increase cross-border trading and create new opportunities for research, development, and investments (Burkhart, Skeadas, & Wichmann, 2016; Dasgupta, 2017).

It is established over time that mutual interests in trade and economic exchange can bring nations together in the spirit of cooperation. In spite of strong geopolitical agenda between them, India and China were both instated as official observers in the Arctic Council. Both countries want to secure the access to energy resources and want a clear foothold in the Arctic Belt (Das, 2013).

In the near future, an increasingly globalized world economy with a growing population will demand more food, energy, minerals and other goods. The Arctic belt will need greater regional cooperation along with robust institutions that can handle rapid and economically, politically and environmentally sensitive and yet, rapid changes. Safety, stability, and sustainability are of paramount importance, given the circumstances.

In this backdrop, the chapter focuses on the revealed comparative advantage (RCA) and trade intensities that India and China may have (or not) with the Arctic region vis-à-vis certain marine and mineral resources, as well fuel. The outcomes will indicate where and how India and China could look to maximize trading potential.

BACKGROUND

The Arctic region is known for mining, fisheries, hydrocarbon, hydropower, and natural gases. These vast natural resources are largely untapped due to the harsh environment conditions and call for special logistics that are conducive to the climate. As far as minerals and mining are concerned, the Arctic region has vast amounts of minerals such as phosphate, bauxite, iron ore, copper, and nickel. These minerals have widespread use in various important industries. Russia alone, mines an average of 11 million tons of phosphates. This is approximately equivalent to 8% of the global output. Phosphates are used in the manufacturing of agricultural fertilizers. Water treatment, flame-retardant materials, and corrosion protection also incorporate phosphates and its derivatives. In 2010, Russia also mined and processed bauxite into 3.85 million tons of aluminium, which was 9.3% of the world production. This made Russia the second-largest producer of bauxite in the world after China. Russia also mined 100 million tons of iron ore, 6.25% of the global production (Buixade Farre et al., 2014).

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