Arctic Economics

The Arctic Environment

The Arctic is not just the coldest place on earth it has become the sight of economic stimulus globally The foresight of some output of research and business interest has supported the recognized targets and improvements needed for the local private communities and people throughout the lands As the area is full of non-educated people who have lived and maintained a direct relationship with the region they are the conduits of knowledge and life experiences permeating interest and exploration of the environment surrounding them These true to life tales are as valuable as the introspective assumptions of degreed researchers or persons with interest There is accessible capital but debt and liabilities are the mediums of control However with these factors in mind all involved must derive within a combined alignment between land dwellers land owners and the others divested can pivot the sense of regional economic development currently in motion There must be cross border cooperation

The 'Antarctic Treaty' established in 1961 known as the 'Condominium Treaty' and maintained through the Buenos Aires Argentina headquarters Antarctic Treaty Secretariat This is the body which regulates governance amongst the international countries relate with respects to Antarctica As it is a continent with out native human population this formal strategy serves to provide fair and impartial use of 'all of the land and ice shelves' south of 60* S latitude Always remember these are international territories which can present as infringement on your rights where no 'treaty' exist and cost more sovernity

Amidst the Canadian and Alaskan boundaries are those US laws of the sea which have significant impact on the arctic markets It is with the communal duties of the Arctic countries and the influence toward development that it has become a global focus and author of the value of time Governments and those impacted by the conditions of the marketplace as trade and transport ability provide are unilateral as there is a belief that Congress is non-progressive body when it comes to the dis-interest in exploring it's wealth potential Also the Arctic is plagued by the allegations of parlimentarian's administering cooperative action but not reflecting upon the conflicts present here It is clearly discontentment within the discussions of 'Ice-Breaker' machines for

transporting goods but not oceanography matters re-alignment of cooperative procedures neglect of locals in total and projections upon the limitations of business influx and growth relative to the inhabitants of the Arctic Zones

Ice Breakers are the enablers of transit for trade shipping ability Highly depended upon for direct non-stop access and eliminator of bulk ice patches They are the consumptive expensive and intended controller for economic stability which prevails as transporting goods permits a collective share in Arctic conditions and shared in solutions It is a place of Fishery industry use in time-sharing and for research there are 'ice breaker fleets' out of Europe Russia United States Finland China Canada and Sweden The promise of access however has generated increased Arctic traffic and heightened the 'security' concerns as they relate to water law logistics and territory policing For instance Russia has increased it military presence along borders designating it as a 'flashpoint' seeking onset of boundaries for water and land

Energy considerations are a proper indicator of survival for those inhabiting and transitioning through the Arctic There is an clear energy difference within the cold zone usage There is a need for consideration of achieving 'energy efficiency' in these areas as well There is a need to integrate energy and water systems energy and water uses and efficiencies in order for development reduction of poverty and adaptation to climate change

Ratification and Economics of Arctic Lifestyle Education Preservation and Business Growth

The conditions under which those who reside solely within the Arctic Regions and submit to the extreme cold and ice that is a respective seasonal reality have been in a constant conversation with countries divested in the use of their lands and water ways It is with the recognition of this human condition and lifestyles these weather oriented lands enable them to partake of that governing bodies and those of interest in trade or wealth generation from the natural commodities of the environment must adhere to the growing need for cosmetic educational social developmental and technological care

As many nations are said to have become committed to involvement and investment within this zone there is the primary focus upon forming a constant mean of connectedness This is not as within the lands of North America

whom were at ease with the universal use of land phone lines and in this latter state of coexistence the global use of wifi the Internet smart phones and other computer devices which have us at seconds beck and calls here and afar This area is encapsulated by cold icy land and a minimal season of warmth through which improvements can be made to supplement the disruption of winters So we understand that limitations of a successful trade import and exporting industrial machinary development economic interest and investment and education of the inland populace would serve to enforce ability access and longevity of each segment in practice and action all relay upon some form of communication

As progress is a necessary evil the preservation of local economics natural resources traditions knowledge and practices and their legal rights could only best be supported with a appropriate local autonomy whom has the aide of an international progressive movement which has been reacting co-jointly They are geared to address the risk factors and hazards both present and impending with development There are the typical infrastructure issues in lost and damaged bridges Some repairable other need new construction designs The tribal burial grounds which need protecting and improvement from weather erosion acts of God and other forms of deterioration Isolation of 'cultural landscapes' and sustainability systems required while taking lead regarding ethane or green house gases which are a party to climate change and pollution that must be acknowledged and enacted upon

The 'in' road to resolutions for each aspect of support necessary to make the arctic regions functional begins with the insurgence of device education and distribution mechanisms This is the intension of the influx of tablets smart phones transmittal towers on land and those under water These directly support the current classroom extension of primary and secondary institutions as this is a body of indigenous people typically in dynamically remote locations

Telecommunications are dominant as broad band land cables are being installed that are buried into the ocean and are based out of Tokyo and London This intended for the extension of use by Arctic companies growing and evolving within these places however they are still subjected to the limitations the state of education and readiness of this people has rendered them Meaning to meet the demands of industry the advancements in University attendance and training are great despite the restrictive economic status both country and institutions are found to be currently in One must not ignore the growing need for socially

expressive outlets that incorporate community and provide entertainment for those traveling through All require a great level of financial engagement Hence a call to gather and come to a consensus of hierarchy of need communication instillation and reforms which would enable a 'continuity' of business had to be reached A use of 'drafted' risks as environmental matters affecting local populations and communities was drawn

International Investment Focus

The US has held it's position of existence within the Arctic Region however it would take some time before the economic stake it holds came back into focus indirectly seemingly on pause from the constant bridging and control the Russian government take Russia sought the development of a tunnel or road between Russia and the Alaska border lands A suggestion to bring the railroad to the coast has also been proposed However as the dark phase continued Asian infrastructure had moved forward with a slow growth fund allegedly for Arctic advancement This was supplemented through the Canadian European and Danish governments all of which had invested into the Arctic agenda with recognition of it as a third ocean shipping lane for especially Asia and Europe

Business Zone

Travel and Trade are a means of lifestyle and economic tradition which coincide with the 'shared' Artic conditions which demand 'shared' Artic solutions There needs to be established cooperative actions towards defining barriers and purchase of passage way devices building market access agree upon regulations coherence and cooperation within agency [TTIP/CETA] building of infrastructure cross border cooperation and promotion of more viable conditions In summary the Artic Zone seeks unity in:

Cooperation in Ice Breaking:

Building machinery [100 million dollars]

Chartering and time sharing fishery

Research efforts for the betterment of functionality

The United States laws of the sea have a significant impact on our markets Many believe that Congress is a 'dysfunctional' body and is not progressive as it relates to their impact on this focal area Though there are Artic Parliamentarians who discuss issues of the artic zone as it reflects upon those considered 'cooperative areas' none address the conflicts which present here amongst respective parties There is relativity toward understanding and interpreting the 'National Assets' of the Artic Assets which are pertinent to the growth and prosperity of business within this transient zone

Climate Change

The concerns of the 'Climate Change' relinquishes barriers to black carbon exchange and arctic emissions However it is dually noted that as the water temperature and ocean current changes the competition for food could affect the rate of growth mortality and spatial distribution of commercial fish stocks The movement of varied species will alter having some disappear from on location and reappear is areas where not naturally found This will create new territories of interest and transform control of these market as fishermen will face exchanges in product and control The wholesale values are then redirected to the locations of greater pools and varied types of fish An example is in that of the Bering Sea which has seen a shift in its fisheries rated the value of it's 'groundfish' to approximately $426 million

Arctic Interest Expansion & Conditions

Within the 'Artic' regions there is a dire need for an alignment between land owner and exploration for economic development In these places there presents a 'non-educated' but knowledgeable thru life experience about the region and the environment surrounding them As these individuals are compared to the scarce degreed researcher persons whom are often called upon to experiment in offering solutions to problems there is no cohesive measures from which real-life integrates with learned behaviors At regional conferences throughout the varied countries of interest representatives such as Senator King have used their platform to provide insight into some of the problematic issues

plaguing the Arctic

Energy Use and Forms

Energy as a National Resource is challenged with the matter and US decision to 'drill' or not as consideration of the affects are measured against the reality that it is an international territory and other countries may be willing to move forward with such interest

The use of geothermal ocean solar and wind resources are energy forms along with the retaining hydrocarbons as back-up to generate electricity during emergencies or a peak resource Energy must be low carbon renewable regulated in delivery and used efficiently within the Circumpolar Arctic zone

There are also issues with the water quality and scarcity It should be a renewable resource but has it's problems within this region There are times of depletion of the storage aquifers as the water's quality needs improvement through treatment It is transmittal of water borne illness and can have high saline intrusion affecting it's usability

Fisheries are primary and reflected within the trade systems

Fishery is an infamous means of revenue for those of our international bodies whom troll the oceans waters seeking such natural arctic commodities It is a staple of our economies and as a shared interest respected with territorial governance

Transit Routes of Trade

There are three specific routes of trade and transport throughout the Arctic regions:

NSR: Northern South Region

NWR: North West Region

CAO: Central Arctic Ocean

Each has its own seasonal ice patterns and drifts as reflective in the logistical transport patterns pre-designed to enable travel and trade

progress These paths are congested as they are of global use falling under the need for constant use but subject to climatic environmental issues The climate change initiatives have also enlightened these communities to the subtle elongated 'ice' free seasons which resulted as temperatures are warmer longer This impacts the ability to transport through the impacted routes for additional weeks without the use of 'machinery' for safe passage In turn there is the potential for corporate gains in revenue

Travel in regards to 'cruise ships' and other vessels of leisure has been examined for potential as the melting conditions create options in passage

This goes also with the understanding that trade and transit have great potential as well as problems in purchasing the appropriate tools to minimize the negative dynamics of travel within this zone The use of 'ice breakers' are good for ships and ships with cargo to transport for trade groups This is based upon prosperity and financial intentions

Security Within The Arctic Borders

Security is thence another facet of this regions trading interest There are three arctic transport corridors outlines and utilized by the many countries divested in trade and transport of goods In respects to this the Russians have increased military development along borders designating them and that as a international flashpoint and sought to establish boundaries for water and land US is not reactive

The Canadian Provinces use their passage as do the Russians whose activities are of concern as to impact the rationale behind Russia's thoughts processes and associations The restrictive actions can be seen by some as an infringement on our rights where no treaty exist and cost more solvency Especially as other countries are researching the plausible increased use for importing exporting and travel within these shipping lanes as a third ocean making the need for high quality and technologically enabled ice breaker machines the primary focus and interest

Insurance

As with most businesses our ocean vessels are not lacking in safety and framed assurance in case of accidents and loss along the seas There is a viable insurance market equiped to sustain shipping companies through calamities involving cargo and crews It is secured through the purchase of H & M [Hull and Machinery] and Cargo Insurance plans specifically for trading on the Arctic routes The travel zones of urgence are recognized as:

TPP: Trans Polar Passage

NSR: Northern Waters

NWP: North West Passage

It's value is strongly reflective in the common P& I [protection and indemnity] protection which incorporates a wide range of liabilities including persona injury to crew passengers and others on board cargo loss and damage oil pollution wreck removal and dock damage

As the market and black market for importing and exporting is growing outside of the 'climate change' reality of warming hence longer de-iced phases the underwriters for insurance have specific interest in risks identified within each individual passageway This calls for a collection of data outside of the sketchy unreliable information provided from Russia relative to 'accident rates' and the knowledge of 'risks' for ice damage to ships and cargoes in the sections of extreme cold temperatures This of course is the determinant of insurance rates Even the 'Arctic' melt causing ice drifts is a resource of risk and ship blockage or damage potential

The international insurance market is said to be willing and able to underwrite policy with adequate conservative pricing until the more specific data is collected for each Arctic region

Environmental Intelligence

As the specific collection of environmental data is necessary it is inclusive of solely the integration of knowledge that is timely reliable and suitable for decisions It must enable transparency through the appropriate use of

observations modeling and global data integration For this measure of growth the Arctic Universities and many diverse research agencies have designated their interest and coordinated means to achieve modern proof for the paradigm shifts required in survival policy and relative to climate change initiatives for this indigenous an business interest here

Arctic International Ice Breaker Needs

Coastal Guard and Polar Code

The challenges of systematic flow are aligned with regimented prehistoric structure There is the preliminary interest of Marine Insurers and the Ship classification societies having outlined the diversity in travel and use for the vessels and the route itself Such are passenger ship requirements polar mariners and of course industrial vehicles Each adheres to the current 'tight' implemented timetable Within this lays the issues of fuel cost black carbon matters HFO Arctic emissions control integration for the area to protect areas beyond the commercial carriers and passengers routes Again this place offers longterm financial investment into short term growth potential as a conduit to attract outside investors

Resolutions & Cost for US

The US Coast Guard operates four ice breakers having one 'science' designated single mission ship operated by the National Science Foundation Scientific research the Palmer The other three Polar Sea Polar Star and Healy are multi-mission ships operated by the United States It became clear years ago that the Polar's the original ships in operation since the 1970's were at the end of their service lives They'd survived through routine maintenance under the deference of funding for appropriate modern replacements This put the US ice breaking abilities at risk in both the north and south arctic regions and therefore unable to meet it's duty protecting national interest in the transmission of fuel food and cargo ship transportability

There is a active patrol functioning through the US Coast Guard advisor of the north of Alaska region whom must meet statutory responsibilities in patrolling enabling increased human activity supporting economic development and observation of environmental change It also has responsibility in emergency situations such as rescue cases pollution incidents assistance to ships under medical urgency grounding by ice or damaged by ice and at some level of dysfunction

There is also a generated disconnect in running simultaneous operations in disparate geographic locations as needed Thus in reasoning replenishing the existing Polar Fleet the matters of consideration are in modern shipyard operations maintaining regular provisions of monitoring having industrial facilities of standard enough fleet members to enable periodic crew changes and proper back-up assistance

After some time waiting upon the US government for funding acquisition and approval of spending the new ships are to be delivered in 2023 There is an alleged $746 million dollar deal having the US Navy's Naval Sea System Command and the US Coast Guard together with a program for the Arctic Zone which is being funded jointly by the Department of Homeland Security and the Navy as primary for the subsidiary Coast Guard division

On order are three heavy ice breakers and three medium ice breaker ships having the tensile strength to break ice 10 ft thick or thicker and up to 8 feet thick respectively Along with the new ships will be new commercial shipping routes to coincide with each speculated delivery This will also support the growing demands of commerce tourism research and international activities in the Arctic and Antarctic regions All well within the 'Climate Change' and the reality of ice season becoming shorter minimizing the time frame of ice as a barrier to travel This directly enforces international interest in 'natural' resource wealth building in these areas as Russia operates its 14 ship fleet installation since 2013 and China works to design a nuclear powered device as additive to it's current 12 diverse styled ship count

Effectiveness Strategies

Carbon released due to 'permafrost' loss combined with the increased solar

absorption by Earth's surface amidst the increased climate change will have a multi-trillion dollar impact on the world economy Climate change temperature change is to best be maintained at 2C* as it is the 'driver' towards cost increases resulting from it's direct impact upon economy's ecosystems human health and sea level rise

Education has traditionally been grounded upon the North Baffin dialect as it was formally favored by the government and used in education materials Currently it is noted that the 'Inuit' language of the territory is the chosen replacement for education as the arctic region has young communities which must become adaptable to the changes having the first barrier in communication and education to be the standardization of language Thus the 'Inuktut' dialect will become standard within the education system and materials as a bi-lingual model using English as well is being developed and later implemented

This however is being challenged as the Nunavut area is struggling to hire teachers who are certified and 'willing' to teach in 'Inuktat' As the region is limited in resources the Nanavut Teacher Education Program [NTEP] based through the Nunavut Arctic College provides training for teaching professionals An alternative use of the University of Regina offers such an education for students but it is found that the chances for receiving a formal education are complicated as 'housing' shortages throughout the territory eliminate the viability in a potential new student base evolving This leads to choice students residing within over crowded homes making it difficult to study or sleep In addition the high cost of food is costive in human nutrition and creates a body of people who are symptomatic of mal-nutrition These and other limitations hinder the universities ability in maintaining students focused and readied for the impending program challenges

Also University income to debt ratios are high This is reflective upon the governments budget liabilities as it relates to the institutions income and revenue status It may be supported with the extension of programming to support the local markets research agendas globally corporate investment in finance educated professionals and other alternative external sources who relay upon this region It may also be supplemented as an outpost for selective agencies which would generate employment opportunities

The arctic zones are not without the simplistic concerns of those social issues which stem from alcoholism substance abuse nor teenage pregnancy Despite it's cold natural landscape those who have been birthed or chosen to reside

here are 'human' They are in need of the same considerations relative to their region as all others countries and cultures especially as trade routes and the necessity for import and exporting are supplemented using their resources

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