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I am one of the diaspora of New Brunswick as is my wife. Because of my profession and family, I am often in NB since I graduated UNB in 1981. I pay property taxes in NB and, along with my brothers, am interested in our woodlot. I have been particularly fortunate to have a long and productive research effort designed to improve ecosystem health in NB forests with JD Irving Limited. Regardless, the economic circumstances of NB is something that occupies the minds of more than a few UNB alumni of my acquaintance – of all ages & both founding peoples– with remarkable passion.

One of my brothers forwarded the link of the output of this committee and I read the reports with interest. I was deeply impressed with their candour. Many of the issues that are described have been of concern to my confreres for many years.

Key points

The two research universities in NB have not been as effective agents of innovation in the SMEs in New Brunswick in comparison to those in other provinces.

Research in forestry and agriculture is done and understood over perhaps the longest horizon of any in our society and requires sustained commitments and patience. Trees and to some extent agriculture are areas of competitive advantage for NB. Large scale energy initiatives are mentioned in the report, but the importance of on farm and woodlot scale energy issues should probably not be overlooked.

Innovation

When I joined the public service in twenty five years ago this month, almost immediately I became involved in the transition in government funding of research from internal government R&D with modest research budgets available to the universities from the national government. Prime Minister Mulroney began the strong trend to do two things: encourage more government-industry interactions and transition resources from government laboratories to universities. Indeed, I am the fortunate occupant of a research chair in a program created during that period. Regardless, successive governments have continued and greatly strengthened these programs. Partially as a consequence, I have been able to see the benefit to Canadian business competitiveness of these policies.

It would be fair to say that some universities have embraced these changes to a greater extent than others. Some provinces have strongly leveraged these initiatives although NB

did not until fairly recently and more effort is needed. Some universities have benefited more than others from these changes and my sense is that this is independent of location. For example, during a period of consolidation and growth, the Dean of Science of Dalhousie maintained an apartment in Ottawa. This permitted the necessary engagement, linkages and understanding of a basic shift in the thinking of elected officials on the role of R&D in wealth creation. Some universities I have worked with make incredible efforts to help faculty deal with complexity of the nature of public and private investments in research. Some do not.

When I received the formal presentation of the Ontario portion of a Canadian Foundation for Innovation grant I received on coming to Carleton University, I will not forget that the responsible Minister in the government of Premier Harris said that he viewed the \$30 million or so he brought to the Ottawa research institutions that day as important economic development investments. Each one of us he said will hire people, train them and help create wealth. I recall his experience had been in business not academia. Ontario in short uses public investment to inform the 20 universities of responsibilities for wealth creation including producing highly-qualified people. The benefits to researchers, post doctoral fellows and students involved in this effort are amazing. The benefits to small and large companies are material.

Forestry & Agriculture

I now want to comment on the particular importance of forestry and agriculture as a competitive advantage critical for sustainability of many communities in NB. In real terms, commodity prices for the products of agriculture and forestry have not changed much in the past several decades. Whether considering our major trading partner, the USA or the larger world, all parts of Canada that depend on agriculture or forestry have been subject to almost extreme competitive pressure. As commodity subsidies are reduced or eliminated, however gradually, it comes now to the survival of those regions that have competitive advantage. In this context, the advantage of the New Brunswick wood supply is today compared to, for example, pine stands in Southeast US. In these areas, fast-growing tree species and a favourable climate produce wood chips that can be moved on railcars, barges or ships to efficient mills.

The forestry policies of New Brunswick in the past 30 years have been remarkably effective in comparison to those of other jurisdictions. Maintaining a leadership position in landscape level forest management is a goal worth attaining. One component of retaining a reasonable leadership position in landscape level forest management is to ensure that key enabling technologies or methods are maintained at a level equal to near competitors. Examples of key enabling technologies include technologies for the efficient production of seedlings of key tree species and for protection against insect pests.

Examples of critical methods include reliable knowledge of habitat requirements for both agricultural and forest lands and improved ability to make site-specific planting prescriptions.

A career in agriculture or forestry teaches you that whatever research needs exist, this is an agenda for the long haul. In Canada, whether for wheat or trees, selecting superior lines is the occupation of a lifetime. My work on biodiversity in relation to natural mechanisms that affect spruce budworm populations has benefited from support from UNB, Carleton University, the Natural Sciences & Engineering Research Council the National Research Council Industrial Research Assistance Program and JD Irving. What began as pure curiosity research >20 years ago is now rapidly evolving towards a knowledge based solution that is anticipated to lead to forest health off into the future.

Agriculture and forestry both require very large amounts of liquid fuel and processing energy. It is critical to the survival of these industries in NB that strong initiatives are developed to maintain affordable energy whether for farm or woodlot production or processing plants. In this regard, I note that Ontario has a major initiative underway that focuses on these questions at the farm and community level and there are initiatives in other provinces that are addressing similar questions in forestry. Efforts in these areas have waxed and waned over the past 25 years, but have come back in full force. As I noted above, although large energy issues are addressed but this issue alone is a large problem, absent subsidies.

Thank you for considering my comments

Sincerely

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