

## **Request for Proposal**

### **Measuring Environmental Externalities in Canadian Agriculture**

#### **Introduction:**

There are significant efforts by international, i.e., OECD, WB, UN, etc., and national institutions, STC, ECCC, to measure the natural capital. These measures, which are calculated at market prices, do not take into account the interactions between natural capital and economic activity that are not captured in cost of producing the goods or in the prices they do command in markets. For instance, the increase in land prices due to urban encroachment may result in an “accounted” increase in the value of natural capital but tells us very little about sustainability of agricultural production in that specific area in question. Therefore, measurement of external costs (damage caused to the soil, water, air and biodiversity) and external benefits, aka “environmental goods and services”, are essential in moving the use of resources towards a more sustainable model.

Externalities could also play a role in defining the basis for providing an objective measure for certifying and labeling products as “sustainable”. In this context, they could redefine the comparative advantage of countries and identify the regions of production that are most beneficial for global commons.

There are some measures of environmental externalities in agriculture, including both external costs and benefits, for some of Canada’s competitors such as the Netherlands and the USA. However, Canada has no comprehensive analysis of the externalities for the Canadian agriculture. While we often express our pride in the “pristine condition” of natural resources at the disposal of agri-food producers, we do not have the evidence to back up these claims, and eventually monetize these attributes. In Canada, the indices of agri-environmental indicators are measured periodically. While these measures are valuable in monitoring the direction of change in the impacts of agricultural production on natural capital, they do not provide us with the magnitude or the approximate monetary value of these externalities.

#### **Objectives:**

The main objective of this project is the measurement of externalities – positive and negative – associated with agricultural production in Canada, and a comparison with other countries (wherever a comparable analysis exists, e.g. the Netherlands, the US, the UK). Project will include the following elements:

- I Develop a methodology to measure important environmental externalities that could be applied across Canada.
- II Identify, categorize, quantify and monetize the externalities, both positive and negative, arising from agricultural production; e.g., GHG emissions, water pollution, air quality, biodiversity, agricultural landscapes, carbon sequestration.

III Apply the methodology to (i) prairie agriculture, and to (ii) agriculture in central Canada (Ontario and Quebec) by using existing data.

IV Present results in 4 separate reports:

1. Methodology and data
2. Externalities in prairie agriculture
3. Externalities in Central Canadian agriculture
4. International comparisons

**Timelines:**

September 5, 2018                      Draft of Parts I and II for discussion

January 18, 2019                      Completion of Reports 1 and 2.

April 26, 2019                        Completion of Reports 3 and 4.

**Budget:**                      This is a fixed price, \$75,000 contract.

**Team:**                        CAPI encourages applications from teams with good regional representation.

**Proposals should not exceed 4 pages and should include, as an attachment, short bios of the team members.**

**Please send your proposal by the cob on July 13, 2018 to Tülay Yildirim, Director of Policy Research, CAPI at [yildirimt@capi-icpa.ca](mailto:yildirimt@capi-icpa.ca)**