

## NAP GLOBAL NETWORK - COUNTRY SUPPORT HUB

### TERMS OF REFERENCE

#### **Consultancy: Effectiveness of adaptation activities in the agriculture sector in Brazil**

**November 2019 – April 2020**

The National Adaptation Plan (NAP) Global Network is a multi-funder initiative that was established in 2014 to enhance climate adaptation planning processes in developing countries through coordination of bilateral support and in-country actors. Participants of the Network come from over 130 countries and are primarily adaptation practitioners working on National Adaptation Plan processes.

The NAP Global Network delivers support through a mechanism called the *Country Support Hub*, providing expert advice and short-term technical support on specific issues related to the NAP process or its implementation.

#### **Purpose of the consultancy**

Brazil's Sectoral Plan of Mitigation and Adaptation to Climate Change for the Consolidation of a Low-Carbon Emission Economy in Agriculture (ABC Plan), included in the National Plan for Climate Change (PNMC), was established in 2011 by the Ministry of Agriculture, Livestock and Food Supply as a government instrument to increase the area under sustainable agricultural practices. More specifically, it organizes the planning of actions to be taken to adopt selected sustainable production technologies to allow the country to meet its commitments in both reducing greenhouse gas emissions and increasing the resilience of the agricultural sector to climate change through the deployment of adaptation actions.

The main activities listed in the ABC Plan focus on building the capacity of technicians and farmers; technology transfer; research, development and innovation; credit lines to promote sustainable production; environmental and agrarian compliance; provision of inputs for farmers; and mapping sensitive areas to the impacts of climate change.

With the release of the Brazilian National Adaptation Plan (NAP) in 2016, the adaptation part of the ABC plan took an even more prominent role. The NAP elaborates an adaptation strategy for the agricultural sector with the goal of improving the decision-making of farmers and public-policy managers faced with uncertainties related to climate risk, through efficient access to information, technologies and production processes for the establishment of sustainable production systems. The ABC Plan is an integral part of that adaptation strategy.

Changes on climate such as reduced rainfall and longer periods of temperature extremes, among other events, have direct effect on crop cycles, with important impacts on the quantity and quality of harvests. These changes can compromise food security and farmers livelihood. Thus, adaptation to climate change must be part of a set of public policies that addresses the vulnerabilities that allow productive chains to be structured, increasing the resilience of production systems by creating systems adapted to the new conditions.

In Brazil in the last four decades, agricultural research has been working on adaptive strategies, we have faced the challenge of developing alternatives that allow agroecosystems to adapt to new climate scenarios. For some crops several strategies aiming at increasing climate resilience have already been developed and implemented allowing Brazilian agricultural production to grow exponentially and become a world prominent country in the production of some agricultural crops. However, the diagnosis of the main vulnerabilities, knowledge gaps and adaptive measures must be measured, identified and improved so we can scale up and replicate the successful experiences.

### **Activities related to the assignment**

The assignment will involve:

1. Analysis of soybean and beans production (and productivity) data from 1970 to date, and identification of at least three periods when vulnerability or actions on adaptation and resilience may be reflected.
2. Diagnose the occurrence of weather events associated with the evaluated period, identifying events such as droughts, temperature changes, floods, winds, pests and diseases, etc., and associated with the occurrence of production breaks in the soybean and beans production chain. Include in the diagnose social and economic aspects associated with or resulted from the occurrence of production breaks in the soybean and beans production chain.
3. Diagnose the main technologies developed in the same period (genetic resources, equipment, management systems, innovations, etc.) as well as the main related public policies, sectorial organizations, economic situations (such as foreign exchange, demand for products, etc.) for the production chains under study, and the impacts on their production curve which allowed growth or stability nonetheless the events associated to climate change over the analyzed period.
4. Identify recent advances in the scientific debate in Brazil about vulnerability and adaptation in relation to the cultures under study and analyze how adaptation is integrated into the federal government's approach.
5. Perform an analysis of the data obtained in the previous products, considering i) which factors evaluated are strategic for the adaptation and increase of resilience and that allowed the gains of production, productivity and longevity to the evaluated system; ii) what changes had to occur for the continuity of production such as changing the place of cultivation, production varieties, crop integration, management, new production systems or social and economic factors; iii) what would have been the production if the adaptation actions did not have taken place.
6. Meeting with representatives of the Ministry of Agriculture to present results and incorporate their feedback.

### **Deliverables**

The following table describes the anticipated deliverables for the assignment:

<b>Deliverables</b>	<b>Due date</b>
1. Detailed work plan	November 20
2. Report with the analysis of soybean and beans production (and productivity) data from 1970 to date, and identification of at least three periods when	December 23

vulnerability or actions on adaptation and resilience may be reflected.	
3. Report with the diagnose the occurrence of weather events associated with the evaluated period, identifying events such as droughts, temperature changes, floods, winds, pests and diseases, etc., and associated with the occurrence of production breaks in the soybean and beans production chain. Include in the diagnose social and economic aspects associated or resulted from the occurrence of production breaks in the soybean and beans production chain.	January 30
4. Report with the identification of recent advances in the scientific debate in Brazil about vulnerability and adaptation in relation to the cultures under study and analyze how adaptation is integrated into the federal government's approach.	February 28
5. Report with the analysis of the data obtained in the previous products, considering i) which factors evaluated are strategic for the adaptation and increase of resilience and that allowed the gains of production, productivity and longevity to the evaluated system; ii) what changes had to occur for the continuity of production such as changing the place of cultivation, production varieties, crop integration, management, new production systems; or social and economic factors; iii) what would have been the production if the adaptation actions did not have taken place.	April 10

We suggest that a team of 2 researchers apply for the consultancy and that the estimated period is 6 months.

### Required qualifications

- a) The required qualifications for the researcher on agricultural science are:
- Graduated in the Agricultural sciences or related areas
  - Master's degree in a relevant field related to agricultural production systems
  - Demonstrated expertise in climate change work
  - Minimum experience of the 7 years in research or elaboration of projects involving the theme of climate change, agriculture and environmental monitoring;
  - Experience in information systematization, data management, data analysis and reporting;
  - Fluency in Portuguese and English (spoken and written)
- b) The required qualifications for the researcher on social and economic science are:
- Graduated in the Agricultural sciences or related areas
  - Master's degree in a relevant field related to social and economic aspects in agriculture;
  - Demonstrated expertise in climate change work
  - Minimum experience of the 7 years in research or elaboration of projects involving the theme of climate change, agriculture and social and economic;
  - Experience in information systematization, data management, data analysis and reporting;
  - Strong research and writing skills
  - Fluency in Portuguese and English (spoken and written)

## Reporting

The consultant will report to IISD through the NAP Global Network Country Support Hub Coordinator (Patrick Guerdat).

The consultant will work closely in consultation with the NAP focal point; and the Ministry of Agriculture, Livestock and Food Supply.

## Application Process

To apply for this consultancy, please submit a cover letter, CV, your daily rate and a proof of your daily rate (e.g., copy of a contract of at least 20 days that states a daily rate) to:

[info@napglobalnetwork.org](mailto:info@napglobalnetwork.org)

In your application, please clearly demonstrate how you meet the criteria outlined above.

**Application deadline:** November 10 (midnight), 2019

**Start date:** November 18, 2019

**Location:** Can be done remotely but will require presence in Brazil (Brasilia) for several meetings.

Financial support provided by:  
Ce projet a été réalisé avec l'appui financier de :



Secretariat hosted by:  
Secrétariat hébergé par :

