## **Brief summary**

Objective: Manitoba experience

During my three-month experience in Canada at Brandon University, I collaborated and worked with Mr. Dion Wiseman for the study of the Geographic information System (GIS) and the Network Analysis approach. At the beginning of my research project, I had never had any academic contact with Mr. Dion Wiseman; I was simply looking for a research experience abroad and I wanted to study the GIS and the food system. In my plans, I only had these goals at that time.

Thanks to my supervisor in Italy, Mr. Matteo Vittuari, I have discovered the Rural Policy Common Law (RPLC), an international study group that revolves around Rural Policy. Through this network, I was able to meet Wayne Kally, the supervisor of RPLC from Brandon University; he suggested getting in contact with Mr. Dion Wiseman to deepen my knowledge about the GIS. I established contact with Mr. Wiseman and shared with him my research ideas and further expressed my interest in studying the GIS technology and work with him. During my bachelor's degree, I had already studied the GIS as a tool for planning the phyto-depuration of polluted soil for multifunctional agricultural in an urban context. After the first contact, Mr. Wiseman told me that the food system did not constitute a topic for his research and for this reason he was hesitant about it. Regardless, he generously offered to help as he was interested in some of my ideas.

I was at Brandon University for three months during the summer. The aim of the project has been to study the local food distribution in south-west Manitoba with the GIS analysis for identify efficiency and inefficiency in local food planning. A comparison of three case studies of access to food between local and conventional markets has been done too. The aim was to identify inefficiency in distribution and access to local food system and make policy recommendation for a better planning of the system. I could analyze the food system using the Geographic information system software while taking advantage of my physical presence in a rural area such as Manitoba, Canada.

During the first half of my stay, I studied the software, undergoing web courses from the official site of ESRI-GIS as well as receiving certificates from the Network Analysis. My supervisor there gave me free access to all materials for my research. At the same time, I prepared a survey for producer and buyers to obtain information about local markets, their behaviours, and the food life-style. In order to receive permission to conduct the survey, I had to apply for the Ethic Approval (BUREC Application) at Brandon University. Even though the process was long and difficult, my enthusiasm for my research pushed me to keep going. With the support of Mr. Wiseman, I was able to collect all data required for my project by web site and research on field, attending the local markets. I have built the Road Network and have found the spatial distribution of population and the distribution of local markets and grocers in my study area. During the summer, I studied some of the local markets in my project and collected information about what kind of products they sell, where they produce their products, how many local markets they usually attend etc. I concluded my analysis with the GIS by using the specific tools of Network-Analysis.

While I was working on my project, thanks to Mr. Wiseman, I met some professors that were interested in my project and my profile. Mr. Dion has been a great supervisor for me and he always encouraged me to do more. More specifically, thanks to him, I met Mr. Kristane Lowitt, professor of Urban Food Geography at BU who was very interested in my research and my GIS maps. We have decided to collaborate, work together and go ahead with the local markets project with the aim of publishing an article in the future together. I am sharing with her all my information and BUREC

application for data collection and my data. Right now we are still in contact with Dion and her for our future project.

Another important connection was the prof. Serena Petrella. Serena is a sociology professor at BU and she is working on a project with the Canadian government on food security for the First Nation community in northern Manitoba. She was interested in my profile and offered me an opportunity to work together at the project in the future, thanks to my precedent academic experience in the fields of political science, cooperation and international development, and my actual interest in the food system.

The last relevant connection of my network in Manitoba was Wayne Kelly, my supervisor of RPLC from Rural Development Institute. He is a PhD student, focused on applying innovative development research to help Canada realize the opportunities and overcome the obstacles that is facing it as a society, an economic power and a hub for technology change. I discussed with him various topics including the Blockchain system, rural governance and security for rural communities, and we have decided to stay in contact in the future for further research opportunities.

At the end of my experience, Mr. Wiseman offered me the opportunity to present some preliminary outputs of my research at the 42nd Annual Conference and Annual General Meeting of The Prairie Division of The Canadian Association of Geographers (PCAG 2018). The Department of Environment and Geography, University of Manitoba, Lakeview Hecla Resort, Hecla, Manitoba hosted the event on September 28-30, 2018. I was excited to give my first presentation at an academic conference and following the event, I received a prize for my work from the supervisor of the conference, Mr. Derek Ebers.

Thanks to this experience, I was able conduct and independent research work, as well as collaborate with various people and to multi-task. I built a great network of connections for future academic projects; I improved my expertise in empirical social science research methods and presented my findings at an academic conference. I studied the GIS and I have certificated my knowledge by ESRI. I have improved my academic English skills and I met Dion Wiseman, a great professor and connection.

This is a brief but deep summary of my three months in Canada.

Thanks for the attention

Best regard

Francesco Cirone