NAME:	Titus Tienaah, B. Sc., MScE (In Progress) t.titus@unb.ca
ROLES:	C-Change Research Associate Masters Student, University of New Brunswick GIS Platform Design and Visualisation
DISCIPLINES:	Spatial Programming, GIS, VGI
KEYWORDS:	GIS, VGI, Open Source

RESEARCH INTERESTS:

Current research in local ecological knowledge suggests a need to integrate quantitative (science) and qualitative (local knowledge) data to come up with methods for visualising and communicating this hybrid as information. To develop a general purpose platform, a framework is required to visualise and communicate precision and imprecision. A common platform will facilitate identification of vulnerable coastal communities to the impacts of sea level rise. In the midst sea level rise, storm surges and other coastal impacts, it is important to harness local/traditional observations with science to help coastal communities design and manage proactive adaptation strategies.

My research interest is to implement a collaborative GIS to serve as a link between coastal science and local knowledge. This customised GIS will support spatial context discussions, visualisation of map layers, and volunteered geographic information (VGI: text, photographs, video, and audio) to facilitate the development of coastal adaptation strategies for sea level rise and other coastal storm events. Locally generated content will support scientific outputs on a cost effective, cross platform, and a customised web GIS using open source tools. Tools under consideration include: MapServer, Apache Web Server, MySQL (spatial extension), MapFish (ExtJS, Open Layers and GeoExt), Google Earth, and Microsoft Virtual Earth (Bing maps). The platform will support several Open Geospatial Consortium norms, like WMS, WFS, WMC, and KML.

BIOGRAPHY:

Titus has a Bachelor of Science degree in Geodetic Engineering and currently studying for Master of Science in Engineering (MScE) at the University of New Brunswick. His research interest is developing visualisation and coastal collaborative GIS tools supervised by Dr. Sue Nichols.