

Keta Lagoon Proposal

Introduction

This is a draft proposal to create a Locally Orientated Open Knowledge Unitary Project based in the Keta Municipal District of Ghana. This proposal has been developed by Fabian Tompsett as part of a submission to the Information and Communication Technologies and Development postgraduate course at the University of East London. It was stimulated by an article by Beth Hoffman which appeared in *Forbes* using a photograph by Ghanaian Wikimedian, Sandister Tei. This article highlighted the impact of the Akosombo Dam (Hoffman 2014). I was also impressed by the comments from another Ghanaian Wikimedian, Rexford Nkansah, following his participation in WikiAfrica's Open Africa 2014 course:

“Ghana is ready to work for Wikimedia. It is going to help improve our education system, it is going to make mutual knowledge free and accessible everywhere. We are glad Wikipedia is here and we are going to make sure we take advantage of all its benefits.” (quoted in Sutherland 2014)

I also received encouragement from Enock Seth Nyamador, also very active with the Wikimedia Ghana chapter. I would also like to thank CAFA Archive Recourse Action Team, based at May Day rooms London for their comments.

Keta Lagoon

Keta Lagoon is a wetland area located in the south-east corner of Ghana, lying to the east of the mouth of the Volta River. Little is known about what inhabitants there were before the arrival of the Ewe people in the late seventeenth century. The lagoon became the central area around which the Anlo sub-group of the Ewe people settled. The lagoon fills an area of 300 sqkm, and lies at the centre of the Keta Lagoon Complex (Forestry Commission of Ghana, 2014) which has been declared a Ramsar Site, i.e. one of a number of wetland sites which have been listed as being of international importance, and which participating governments have agreed to ensure there is effective management, suitable policies and legislation and appropriate public education. (Ramsar Convention 1975) The overall size of the site is 1,200 sqkm and it occupies most of the Keta Municipal District which has a population of 147,618 (City Population 2012). The lagoon is separated from the sea by a narrow littoral strip which is primarily composed of sand and which varies between 0.5 and 2.5 kms in width. (Boateng 2009)

Located at the western end of the Slave Coast, the Anlo people became integrated into world commerce in the eighteenth century. Keta, more or less midway along the littoral strip, developed as a regional trading centre and surf port i.e. where ships anchor some distance from the shore and small boats ferry cargo ashore. After the Danish-Anlo war of 1784 - which the Danes won with the help of armies drawn from rival local African nations - the Danes built Fort Prinzenstein. Although this played a role as a place to lock up enslaved Africans before shipment, it proved quite ineffectual for exercising any authority beyond the range of its canons. This meant that when the Danish abolished the slave trade in 1803, this was ineffectual as regards the Anlo, who continued to sell slaves to the Portugese and Brazilians. Although the Danish sold their interests to the British in

1850 it was not until 1870s that British succeeded in gaining control of the area, in many ways facilitated by the stationing of Hausa police in Keta. (Amenumey 1968)

This background information indicates two important factors:

- The Anlo people have long been integrated into world trade
The Anlo people have shown themselves to be very adaptable, moving into various areas of trade depending on market conditions. They also developed fishing skills in the lagoon, which they then transferred across the sandbank to the open seas. They became innovators in fishing techniques and gained a widespread reputation for this throughout the Gulf of Guinea
- The Anlo people have sometimes had troubled relations with their neighbours
Warfare was adopted by them as significant way of capturing slaves, which however made them unpopular with their neighbours - often fellow Ewe. This occurred in the context of the imperialist activities of successively the British, Germans and French in imposing colonial boundaries. This history has impacted on post-independence Ghana's ethnic politics where the Anlo have often found themselves excluded by more populous people (Akyeampong 2001).
- In the local politics of the Keta Municipal District, the role of Tegbui, the traditional chiefs is important: the dispute over the development of a salt factory in December 2013 is evidence of this (Joyonline 2013, Ghana News 2014). It is important that any project takes into account all stakeholders and does not unfairly support any single view. Here, Wikipedia's "Neutral Point Of View" ethos will be important.

The Problem: Coastal Erosion

The International Federation of Surveyors (FIG) published a case study assessing the impact of sea level rise on Keta (Boateng 2010). This built on the previous work of Isaac Boateng which raised concerns about the dual impact of potential rises in sea level and the reduction of reduction of fluvial sediment on the narrow strip of land which separates the Keta Lagoon from the sea (Boateng 2009). Whilst the effect of climate change on sea level is a matter of global concern, this problem is compounded in this area by the impact of the Akosombo dam on the Keta Strip. This dam, completed in 1965 was funded by the International Bank of Reconstruction and Development, part of the World Bank (South Colchester High School 2000). Boateng has calculated the reduction of fluvial deposits as being from 71 million cubic metres to as little as 7 million cubic metres per annum. The situation of the lagoon lying behind the strip of land makes the whole particularly vulnerable to flooding. He proposes implementing an Integrated Shoreline Management Plan (ISMP):

“An ISMP provides a large-scale assessment of the risks associated with coastal processes and presents a long-term policy framework to reduce these risks to people and the developed, historic and natural environments in a sustainable manner. In doing so, an ISMP is a high level document that defines the broad requirement for provision of flood and coastal defences and protection. It also takes into account the impacts of defences on the natural environment.” (Boateng 2009)

He concludes his case study with this observation:

“In addition, it would raise awareness and encourage critical thinking about the most

appropriate and sustainable measures needed for the long-term conservation of wetlands, historical heritage and other special sites of scientific interest in the coastal zones.” (Boateng 2009)

The Problem: Political Blockage

Emmanuel Akyeampong's eco-social history of the Anlo people (Akyeampong 2001) has shown how their culture has proved very adaptive to both their immediate physical environment and also the global economy to which they have been linked through the prominence of Keta as a regionally significant surf port for many generations. However it is precisely these strengths which have also functioned as a constraint. The particularities of the ecology of the Keta Lagoon has meant that the Anlo people have focussed on developing different economic interests from the larger political entities which have dominated them since the British incorporated them into their Gold Coast colony.

The Anlo have been concerned about sea erosion since 1907, but their hopes that the colonial authorities would take measures to protect their environment have proven to be misplaced. So, for example, when the Gold Coast became the world's largest producer of Cocoa in 1911, this crop was neither being produced in the Anlo area nor being exported through Keta. When the colonial authorities employed A. T. Coode to produce the Coode Report in 1929, the result was devastating for the Anlo: Coode had concluded that the cost of installing adequate sea defences was not warranted by the value of the land which would be conserved.

Boateng's report (Boateng 2009) echoed this viewpoint. In the intervening years, Keta has suffered substantial erosion and reduction in population. Also the Ghanaian government relocated the headquarters of the Volta Region further north to Ho in 1968. Akyeampong also chronicles how high profile promises have been made about combating sea erosion, particularly at election time, but with very little actually being delivered. Sometimes this is because of the appointment of incompetent surveyors, embezzlement of funds or simply politicians reneging on election promises.

Solution: Open Knowledge

Hoekman, Maskus and Saggi (2004) suggest almost as an afterthought discuss using a top down approach through the World Trade Organisation's Agreement on Access to Basic Science and Technology to open up scientific data by placing it in the public domain. Fortunately an increasingly widespread understanding of the economic of non-rival goods - i.e goods which may be copied at trivial cost - has ensured an increasing acceptance of Open Knowledge models as being viable. So for example between 2003 and 2005 Silicon Valley venture capitalists increased their investment in Open Source companies ten fold, from \$15m per annum to \$150m (Pollock 2006). Rufus Pollock argues that when considering public policy social value (=commercial value + user value) should be considered rather than commercial value alone (ibid). Creative Commons established in 2001 has organised internationally valid Open Knowledge licenses by 2009 350 million licenses had been issued (Creative Commons 2012) and in 2012 the World Bank adopted an Open Access Policy (Creative Commons 2012).

This shift in perspective, along with the success of peer-produced open knowledge projects like Wikipedia and OpenStreetMap means that 'citizen science' initiatives have an increasing range of technologies to support them. Akyeampong pointed out that whereas elsewhere in rural West Africa those affected by environmental devastation had little engagement with the official discourse on conservations, the Anlo people around the Keta Lagoon have drawn on their long history of education which has "significantly broadened the Anlo social horizons and sharpened their articulation of environmental issues" (Akyeampong 2001, p.20) Alan Irwin discussed how the

ambiguous nature of technological progress - opening new opportunities for some while constraining choice for others - presents a "major challenge to future international development" and to meet this challenge offers citizen orientated programmes as an important supplement to state-led programmes (Irwin 1995).

Locally Oriented Open Knowledge Unitary Project (LOOKUP)

This acronym can be broken into three parts:

1. **Locally Orientated:** this means the project has a specific geographical focus, while yet mobilising participants globally. This means creating what William Mitchell called a hybrid community (Mitchell 1999). This combines elements of both traditional face-to-face communities with the telepresence of virtual communities. This will create what Irwin calls a more symmetric relation between participants as every participants contribution is valued as contextual knowledge in a hybrid situation (Irwin 1995).
2. **Open Knowledge:** this means that knowledge is being created and shared using appropriate internationally recognised Open Knowledge licenses. On the one hand this encourages volunteer participants already familiar with such licenses while at the same time increases the understanding of the local participants in how such innovations work in practice.
3. **Unitary Project:** this means bringing together different pre-existing groups to work together in a co-ordinated way. For this project it is proposed to contact Wikimedia Ghana who have already started working with the Ghanaian Environmental Protection Agency. The Humanitarian OpenStreetMap Team will also be invited to participate, and an important aspect of the proposed project is to enable Data to be more effectively shared between Wikimedia and OpenStreetMap. The backing of academics such as Isaac Boateng (University of Portsmouth) and Emmanuel Akyeampong (Harvard University History Department) will be sought. This proposal implements some of their key recommendations (Boateng 2010, Akyeampong 2001).

This threefold approach will provide will provide a promising basis upon which suitable funding can be leveraged in order to realise the project.

Bibliography:

Amenumev D. E. K. (1968) 'The Extension of British Rule to Anlo (South East Ghana) 1859-1890' *The Journal of African History* Vol IX, No. 1 pp 99-117

Akyeampong, Emmanuel Kwaku (2001). *Between the Sea and the Lagoon*. Oxford: James Currey

Boateng Isaac, (2009) *Development of integrated shoreline management planning: a case study of Keta, Ghana*. In: Proceedings of the Federation of International Surveyors Working Week 2009-Surveyors Key Role in Accelerated Development, TS 4E, Eilat, Israel, 3-8 May, 2009-05-03 - 2009-05-08, Eilat.

Boateng Isaac, (2010) *Spatial Planning in Coastal Regions: Facing the Impact of Climate Change* Copenhagen: The International Federation of Surveyors

<https://www.fig.net/pub/figpub/pub55/figpub55.htm#2> accessed 26 April 2014

City Population (2012) Keta (Municipal District) <http://www.citypopulation.de/php/ghana-admin.php?adm2id=0908> accessed 26 April 2014

Creative Commons (2012) *World Bank stakes leadership position by announcing Open Access Policy and launching Open Knowledge Repository under Creative Commons*

<http://creativecommons.org/weblog/entry/32335> accessed 26 April 2014

Creative Commons (2014) *History* <http://creativecommons.org/about/history> accessed 26 April 2014

Forestry Commission of Ghana (2014) *Keta Lagoon Complex Ramsar Site*

<http://www.fcghana.org/page.php?page=269§ion=32&typ=1&subs=281> accessed 26 April 2014

Hoekman B.M., Maskus K. E. and Saggi K. (2004) *Transfer of Technology to Developing Countries: Unilateral and Multilateral Policy Options* Boulder: Institute of Behavioral Science www.colorado.edu/ibs/pubs/pec/pec2004-0003.pdf accessed 26 April 2014

Hoffman B. (2014) *3 Countries To Watch Climate Change In Action* New York: Forbes <http://www.forbes.com/sites/bethhoffman/2014/03/17/3-countries-to-watch-climate-change-in-action/> accessed 1 May 2014

Irwin A (1995) *Citizen Science: A Study of People, Expertise and Sustainable Development* London: Routledge

Joy Online (2013) *Residents of Agbozome, others protest Keta Lagoon takeover*

<http://www.myjoyonline.com/news/2013/december-27th/residents-of-agbozome-others-protest-keta-lagoon-takeover.php?print=1> accessed 26 April 2014

Mitchell W. (1999) 'The City of Bits Hypothesis' in Schön D. A., Sanyal B. Mitchell W. *High Technology and Low-Income Communities* London: MIT Press

Modern Ghana (2014) *Keta Lagoon does not belong to Agbozome — Adina chiefs*

<http://www.modernghana.com/news/516505/1/keta-lagoon-does-not-belong-to-agboz.html> accessed 26 April 2014

Pollock R. (2006) *The Value of the Public Domain* London: Institute for Of Public Policy Research rufuspollock.org/papers/value_of_public_domain.ippr.pdf accessed 26 April 2014

Ramsar Convention (1975) *The Ramsar Convention and its mission*

http://www.ramsar.org/cda/en/ramsar-about-mission/main/ramsar/1-36-53_4000_0 accessed 26 April 2014

Sutherland J. (2014) *For Rexford Nkansah, Wikipedia represents the future of education for his country* San Francisco: Wikimedia Foundation <https://blog.wikimedia.org/2014/03/19/for-rexford-nkansah-wikipedia-represents-the-future-of-education-for-his-country/> accessed 1 Mat 2014