Background
The following is a report of what I have seen in a 6-week period, touring Malawi, Tanzania, and Uganda, during August and September 2013. I wanted to explore whether a proposal to set up an agricultural advisory website would be of interest and beneficial to the most marginal and poorest farmers in Africa.

To explain the motivation, let me start with a personal statement. I have for many years worked in the field of economic development in Africa and Asia and in the academic world in the UK. I have also been actively involved in various development organisations in Great Britain for many years. I was a member of the group awarded the Nobel Peace Prize in 1985 (International Physicians for the Prevention of Nuclear War) as Director of its European Office.

In the last few years I have become increasingly interested – and concerned - with the challenges facing the poorest in Africa, the woman farmer in the most marginal physical and economic situation. This concern has been expressed in my two books – THE ATTACK ON WORLD POVERTY (2009) and SLEEPWALKING INTO GLOBAL FAMINE (2012).

To address this concern more directly, I have brought together a few friends and contacts to try to establish a network which we have called GRASSROOTS AFRICA to provide a source of unsophisticated and practical support to these farmers. I have been working on this since 2010. If lack of knowledge about better farming techniques and related issues is the primary reason for poverty, can we design a system of simple technical tips that would improve that farmer’s capacity to cope with the increasing challenges? What shape should this help take?

The purpose of the field visit
I stayed two weeks in each country, with the aim of meeting as many individuals, officials, policymakers, personnel of critical agencies and research institutions, donors, national and international non-governmental organisations, farmers’ organisations and cooperatives, and farmers themselves. These countries were selected as being some of the most open, welcoming to new ideas and new initiatives and to some extent representative of the best in sub-Saharan Africa. In addition, Kenya, Uganda, Tanzania are joining in with Burundi and Rwanda into an East African Community that seems to be increasingly better able to improve the lives of their people. Common institutions are being set up and travel seems to be easier between the different countries.

The key purpose was the following; did the proposed model make sense to the potential recipients and eventual users? Is anyone doing anything similar? During the visit some 150 individuals were interviewed and their views, comments and alternative suggestions solicited on the proposed project.
The critical macro-economic issues

1. The UN population Division has recently projected that the East African Community (Kenya, Uganda, Tanzania, Burundi and Rwanda) population will balloon from the present 150 million to 270 million by 2030 - that is in 17 years. (UNOPS, November 2012)

2. Climate is becoming noticeably less predictable, with greater extremes of heat and cold, changes in the occurrence and amount of rains, longer periods of drought and drying of the soil. This requires more flexibility and adaptability in farming (Profess W. Otin-Nape et al, research paper).

3. A considerable amount of money from all sorts of donors is being channelled into climate adaptation projects, including from DfID, the UK official aid agency, one of the main donors to the area. There is clear evidence, however, that, of everyone in the chain, the farmer is the least informed link in the chain - a quite frightening situation, but inevitable in view of the problems of delivering any form of education and services in very challenging environments.

4. In the three countries visited in this field study, the official government extension services are not able to cope with the enormous scale of the challenges. The statistics will be unreliable, but there is probably one extension worker for every 25,000 farmers in Uganda, 1:30,000 in Tanzania, and 1:40,000 in Malawi. A perverse relationship is emerging; the further down one goes into the chain of agriculture and therefore the greater the need for information and action, the more one tries to reach the weakest and most marginal farmer, the fewer the provisions and the lower the level of qualification of the staff and the system of support to their work. This state of affairs won't improve any day soon.

5. There is a fast growing network of financing institutions - some banks, some microfinance institutions, some mobile telephone operators - moving into the twin fields of mobile telephony in general and mobile money in particular. The latest survey from the Mobile Money for the Unbanked (MMU) in Feb 2013 shows that mobile money transfer is the preferred method of saving in Sub-Saharan Africa. In Kenya, for example, there are more mobile money transfer accounts (26 million) than bank accounts (15 million). There is, however, little evidence that finance for the small scale farmer is becoming easier or more easily available. The financial institutions seem to be retreating from lending to the poorest farmers. There is, however, more lending to SMEs (small and medium scale enterprises) involved in farming.

6. Tanzania is the largest country in the EAC, with 51% of the total land area, roughly one million square km. It has, however, only 38% of the land under cultivation, whilst Kenya has 32 % of the total land area and 45% of land under cultivation. In other words, the EAC will look to Tanzania for unused land - which is estimated at 380,000 sq km. (East African News, 7 September 2013)

7. Land issues, by which one means land rights, land inheritance, right of use, ownership, right of residence, seem to be critical in all three countries. It is a series of issues that are all inter-related but unclear everywhere. Newspapers, radio, and television are full of reports of highly localised conflicts over land, of land changes proposed and discussed in parliaments, of conflicts between traditional authorities and modern governments, of disputes about refugees, displaced person, nomads, of disagreements between the 5 countries at the highest level of inter-governmental meetings. Few general solutions seem to emerge.

8. Kenya, Tanzania and Uganda have recently discovered oil reserves. This will lead to what economists call the Dutch disease, namely a situation in which the
currency appreciates because of the value of raw material exports, which in turn affects negatively the farmer, as it becomes cheaper to import food than to buy the locally produced items. The value chain might be seriously impacted as food processors are more likely to buy food from imported sources.

9. The world food situation is such that there will be more and demand from the external world to acquire land in Tanzania and other countries in the region, but the increased production will go directly to the countries that have purchased those lands, including India, China and the Middle East (see; The Great African Land Grab, by Lorenzo Cotulla, July 2013). That production will be at the expense of the local market, which will not be able to compete with in the export market. It will mean a double whammy to the poorest farmers; a reduction in available good arable land and fewer exporting opportunities.

10. Local markets are very poorly structured, with poor rural roads, limited storage facilities available to farmers, farmers producing the same items all at the same time because they do not sufficiently vary their productions, and all are trying to sell in a market that forces the price downwards. The result is not cooperation but competition, which leads to greater poverty.

11. There are more and more commercial enterprises and agro-processors in all these countries, but it is hard going. The individual companies have all the disadvantages of operating in an unfriendly environment. If you need energy, you cannot plug into the national grid; you have to have your own generator. If you need transport, you cannot hire a truck; you need to have your own. If you need seeds, you must go and collect them. If you need a road to the market, you must build it yourself.

The macro-economic answers

1. More food will have to be produced in the region as a whole to feed its own populations if critical food scarcity is to be avoided. That requires capital to improve the seeds, to move into systems of better storage of stocks, capacity to diversify into different produce, acquire some basic machinery (perhaps on a cooperative basis so that more farmers can share them). Banks should develop their networks of lending more widely, but also in depth (i.e. provide more specific advice to the farmers), but the evidence is not encouraging. Most important of all is that qualified people to carry out the radical, massive implementation of agricultural extension, information, demonstrations and support to the most marginal farmer are needed and are not available. Agricultural development is highly labour intensive and is therefore costly to the provider; financial institutions claim that the increasing financial literacy required is not their task.

2. More information on the changes that are occurring in the environment as a whole seem to remain stuck at the high level, with policymakers and donors deeply concerned, but with only limited success in the transmission of the key practical solutions to the farmers. The farmers at the base are not able to adapt to the fast changing conditions that are impacting on them. The existing services seem not to be able to perform as needed - we are talking of countries which have weak physical and human infrastructures and limited budgets.

3. There is however a huge effort by local entrepreneurs, bilateral donors, local institutions (some purely private and some a mixture of statutory and privately funded), as well as commercial investors, international governmental agencies, voluntary organisations, as well as an enormous number of foreign voluntary agencies (there are, apparently, in total some 700 British based NGOs in
Tanzania alone), that are working with farmers, in networks of farming, in organising studies and research - all in the field of agriculture.
4. Most of these organisations undertake interesting work, some totally pioneering in nature, working generally in ignorance of one another's existence or experiences. All such activities are being carried out almost in silos, all vertically, when a lot of the work should also be done horizontally, across disciplines and organisations. This is a long-term malaise of the development organisations; they all have to bid for funds, they thus never share information - unless they can claim credit for inventing the wheel - and they are forever guarding ferociously their territories. Such isolation works against the common good. The increasing specialisation of professions in the North is impacting negatively on colleagues in the South; everyone is flogging their own version of the Gospel of Development.
5. In addition to better information that needs to be delivered directly to the farmer, there should be a greater effort at agro-processing, namely to encourage more food produce to be processed locally and to be used to satisfy local needs or as substitutes for imports. This is another way of saying that there are huge opportunities for imports substitutions (e.g. using cassava instead of wheat flour), but even more for local processing of all sorts of commodities.
6. The multiplicity of international agencies and specialities in the field of agriculture, ranging from animal husbandry to parasitology, from DNA research into seeds to animal virology, all funded separately and with powerful vested interests behind them, lead to greater compartmentalisation. Everyone stresses a different link in the chain of what at the end of the day must be seen holistically. But the researchers are guided by different drivers to those of the people on the ground. More investment is being undertaken in scientific research and not in the delivery of the results – exactly as the scientific community is behaving in climate adaptation in the OECD world.

The human challenges
The poorest of the poor in Africa are women located in remote areas, with no formal education, speaking a minority language, burdened with a large family and unable to produce enough food for her family. Often the man has gone away in search of work and some cash. If he can find anything, he might send the money back. Very often he does not come back. The woman is the mother of a large family that often includes the children of other members of the family who might have passed away. She cares for the older relatives, many of them sick. She is the nurse, the cook, the teacher and the farmer. She is immobile. The land she works is too small to feed the family and her tools and inputs are primitive. She physically could not work more land. The physical environment is manifestly worsening. There are periods of much higher and much lower temperatures than a decade or two ago. The rainy season is less predictable; rain comes down in shorter burst and greater quantities. You are unsure of when to plant. The land is drier and has degraded over decades of exploitation. Every year the farmer keeps back some of her seeds for planting in the next season; inevitably over time the seeds are getting poorer. She needs to be able to adapt and improve her techniques. She needs better seeds, better tools, better farming methods. She needs to diversify her production so that she does not produce exactly the same things as her neighbour, produce it at the same time, sell it on the same market, at a price that inevitably competes with her neighbour and results in pitiful returns. She does not have access to either
finance or advice that would change her ways of farming. Farming is not considered something that anyone could make a living from: no one has ever met a successful farmer. Therefore the motivation is to get some education, go to the city, get a job, does not matter what, get an income. That is why you send the kids to school and might sell anything you can to pay for their schooling. In short; the challenge is anything but farming.

Yet, this is where change needs to take place; people need to feed themselves and generate employment on the land. Agriculture accounts for some 70-80 per cent of employment, between 25 and 30 per cent of the total wealth (Gross Domestic Product) in most countries in sub-Saharan Africa. None of these countries has developed any substantial manufacturing industries. Nor will they; the manufacturing power of China and India is such that African countries, all latecomers to industrialisation, will never be able to develop any substantial secondary industries. What development occurs has to be on the land; more food from less land per person, more variety of crops to enable the children to have a balanced diet, more intensification of farming, better storage facilities of the final produce, some processing, more value added in situ. Higher quality will lead to better prices. Greater organisation of society to create cooperative and social structures will reduce social weakness. That will require more education in rural areas.

The use of the mobile telephone and Internet connectivity is being widely rolled over across the region. More and more people have access to mobiles and the use of texting is widespread. Even very poor farmers seem to have mobiles; speaking on the phone is a natural extension for societies and individuals that have always relied on oral communication. Broadband connectivity will take some years to reach all the areas, but most of the main centres of population are connected. Many agencies and commercial intermediaries have adapted hand-held devices that enable them to monitor the activities in the field. Mobile telephones are certainly the way of the future; the way in which mobile banking has spread is but one example. There are new initiatives in the usage of mobile and new apps being created every month. Clearly, there is less need for computers as mobile telephony is continually evolving. But there has to be an evolution of the spoken word and of videos/films, rather than written messages.

There are good programmes on radio and television and newspapers which aim at improving public understanding of basic agriculture. The lack of literacy at the grassroots however, means that the transmission is limited. Most places in the interior do not have access to electricity and therefore to such information. Those in the know talk to others in the know. I was not able to gauge the extent of penetration of such programmes in local languages.

There are some very interesting initiatives in the countries visited, including support to agro-processing in Malawi, support to farmers by mobile telephone companies in Tanzania, microfinance institutions supported by non-commercial backers in Uganda, improving the quality of produce in Tanzania and diversification of end users in Uganda, the provision of free vouchers for fertilisers in Malawi. They all deserve wider knowledge and support; those who have practiced and executed a project in one country should be able to share that information with others in the same field. There are more and more national and international NGOs undertaking projects in the field of agriculture, many of
them not able to support comprehensively (e.g. they can help with some crops and not others) the farmers they work with.

There are more and more intermediaries emerging in the field of agriculture. They range from obvious groups such as the breweries (big buyers of sorghum and millets), tobacco growers and buyers, exporters of mangoes and bananas, more processors of groundnuts to make biscuits for children (mixed with milk paste), or farmers supplying the World Food Programme for the Gates-funded agricultural purchasing programme called P4P (which buys from local farmers) but there are also more seed, fertiliser, chemical companies selling to the farmers. Many of the intermediaries are connected to the internet and supported by good head offices. These commercial intermediaries need to buy more quantities and better quality produce from the farmers.

There is a very large number of clever and well-motivated people working at different levels in all sorts of organisations who wish to contribute to the general improvement of their different professions in agriculture. Too many of them are stuck into laboratories and research centres, in universities, in ministries. Their discoveries and work do not find their ways into the general consciousness; they stop at the door of the lab. Many people in the voluntary organisations similarly have initiative and vision, but they have not yet coalesced into the critical mass required to generate a coherent approach. It may well require greater clarity of intention on the part of government – probably more political leadership than exists at present, but also far more capacity to execute and deliver. This would have to include clear directions to the educational sector; there should be new low-tech agricultural colleges everywhere; new appropriate trades should be created – such as irrigation technicians and water pump operatives; all schools should have school gardens and agricultural teaching; there should be small demonstrations plots in every villages; and so on.

The opportunity/need for Grassroots Africa

What GRASSROOTS AFRICA IS trying to achieve

GRA intends to be an internet-based service comprising a number of interrelated “COP - communities of practice”, namely groups of people who could receive questions from the farmers (via the intermediaries) and would give them answers relevant to the issue raised. Each of these COPs would deal with a commodity or item of key interest to the farmers – maize, cassava, bananas, tomatoes, leguminous, sweet potatoes, etc. These COPs would be populated by people who have worked in the relevant countries with the relevant produce (answers must be location-specific) and are practitioners rather than theoretical researchers. Most of them will be people who are based in Africa and are trusted by the intermediaries. Each of these COPs would have a moderator, so that the suggestions transmitted to the farmer should be those that are deemed to be the most sensible and practical.

Since it is virtually impossible to reach the poorest farmers – the one that needs the service most of all directly, GRA must to rely on intermediaries to ask the questions on behalf of the farmers and then transmit the answers back to the farmers. In the GRA model, these intermediaries would include national ministries of agriculture, national association of farmers, national voluntary agencies and international voluntary and statutory agencies, university research centres, international agricultural research centres, organisations that place
volunteers personnel in agriculture, such as VSO from the UK and the Peace Corps from the USA. By definition many of these are very good at one or two commodities but cannot support the farmers with suggestions concerning the enormously vast array of produce and issues.

The aim of GRA is, and remains, to supply information to the farmers at no cost to them. The whole project, however, would have to be self-sustaining in the longer term by charging commercial intermediaries. These include bodies that are profit-making, such as microfinance institutions and banks, as well as increasing numbers of exporters of mangoes or bananas or sorghum or those that sell seeds and fertilisers to the larger farmers or international agencies and others contracted by official donors – particularly some of the larger governments. The site would also carry some advertising.

RECOMMENDATIONS
1. GRASSROOTS AFRICA (GRA) has been advocating a model of an internet-based general source of information on farming for the poorest. There is little doubt, after talking to dozens of people, that the basic concept remains valid. The hundreds of existing bodies and organisations do not need more forums and alliances, especially not if it means paying for membership or attending yet more conferences. But a common reference point ("a Wikipedia of practical agriculture") could cut across sectional interests.

2. The initial concept is valid – but the focus for action needs to be moved from the farmer to the intermediaries. The farmer cannot access the information directly. Any service would need to offer marketing tips and linkages, address issues concerning agro-processing, explain about relevant small-scale equipment, and offer commercial opportunities in the richer world.

3. Trying to explain to the farmer that their lives might be improved if they learnt more about farming is too vague a notion; that is a long-term aim. More immediate cash in their hands will, however, be a serious motivation. To achieve that aim, intermediaries with the motivation to purchase increasing quantities of produce from the farmers can be the mechanism of development.

4. They intermediaries must be persuaded of the value of the service that GRA offers as a tool to improve the farmers’ livelihoods at very little cost to themselves. The GRA website needs to be aimed at them; they are better educated and better equipped than the farmers. The website can therefore be in English and not in a vernacular. There will be fewer problems with internet connectivity.

5. There are certain specific agencies and individuals who are sufficiently interested to create an initial pilot network that would cover at least 50,000-100,000 farmers, possibly more, in each of the three countries.

6. The value of any website will depend on its acceptability to local governments and the local communities. The bulk of the advisers need to be names that local people will recognise – senior researchers, professors, writers in the relevant subjects. Even if these people do not have the time to become regular contributors, their endorsement of the project as a whole, through their willingness to be associated with it publicly, will make then project possible. It is also suggested that the top names (perhaps patrons or hon. Presidents) should include women of distinction.
7. The key crops on which the website should start are maize, cassava, sweet potatoes and Irish potatoes, and some horticultural produce.
8. The idea that there should be “a Wikipedia of practical agriculture” might be too early or too late. There are several initiatives that touch on something similar, around the same theme. There may well be more that have not been heard of or discovered. It is obvious that this is the moment at which, using the technology that exists at present and in parallel to the rolling out of the internet across the region, it should be possible to establish Grassroots Africa. It is an all-encompassing project that allows for everyone to join and participate.

(I am extremely grateful to everyone who did the original research that enabled me to visit the organisations and individuals with a reasonable amount of information and even more to everyone who saw me, patiently listened to my exposition, made sensible comments, and enabled me to make this presentation and report.)

Benny Dembitzer
October 2013

director@grassrootsafrica.org