

**BARBARA J HEINZEN**  
London [UK](#)

Hon Dick Nyai  
Kampala  
Uganda

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**Biodiversity markets**

Dear Dick:

Well, finally! My apologies for taking so long to start this letter to you. Since July, I spent more time than was wise on editing the SID journal, *Development*, but that is now put to bed and I can turn to the things I have been wanting to do for some time. I tried, by the way, to get through to you via email, but failed each time, so I decided to return to the old-fashioned post.

So, what exactly is rattling around my mind? Honestly speaking, I don't know. But let me list the germs of my thinking so far.

- 1) **rural knowledge in Africa** – Since I first began understanding rural life in Africa in the 1970s, I have been impressed with the degree to which many habits and customs that make little sense in a Western market, make a lot of sense from an environmental point of view and perhaps also in terms of social equity. These habits and customs are a form of managerial knowledge. This knowledge often stands up to scientific scrutiny, especially when judged against the standard of resilience in an uncertain climate, rather than the standard of highest production from least labour/land.
- 2) **biodiversity in Africa** – The question I raised in my book was: was the impressive biodiversity of Africa that amazed Europeans around 1900 the result of African practices or in spite of African practices? Or was it perhaps due to some calamity such as epidemic disease clearing the land? I suspect that a large part (but not all) was the result of African practices.
- 3) **employment in Africa** – All three countries where we did scenarios showed a need to create employment for young people. The old agricultural systems have reached the limits of their ability to feed increasing numbers of people, but new livelihoods are hard to find.
- 4) **climate exchange markets** – As the science of global warming and climate change becomes more accepted and the need to control green house gas emissions more urgent, people are inventing financial markets that create an economic incentive to reduce climate emissions. These markets are based on an artificial scarcity created by governments which put a cap on how much carbon all polluting industries can pump into the air. Each firm is then given so many tons of carbon it

is allowed to spew into the air. If the firm needs to emit more tons of carbon than it is allowed, it can buy unused tons from another firm. Even non-firms can buy carbon and either sell them, or 'retire' them, i.e. take them out of the market forever. In theory, governments will slowly reduce the total amount of carbon allowed in the atmosphere each year, until carbon emissions are negligible

In June, I paid a visit to Richard Sandor in Chicago. He invented the first emissions trading scheme at the Chicago Board of Trade (based on reducing sulphur emissions) and has now established a new scheme for trading carbon. It began in Chicago, but is also now operating in Europe. These schemes create a new source of revenue for traders. In the Chicago Climate Exchange there is also a mechanism for 'sequestering' carbon in forests – i.e. firms that emit carbon can pay others to plant forests that soak up atmospheric carbon.

The carbon emissions markets are driven by the concept that the polluter pays, but these payments are then directed to others who are rewarded for reducing their own pollution either by emitting less carbon or by using trees, soils and crops to soak up the carbon pushed into the air. There is, for example, an organisation called "Future Forests" that sells trees to individuals who want to compensate for their own carbon emissions (from cars, air travel, home heating, etc.), and then arranges for the trees to be planted.

Several things are interesting about these carbon markets. First, people are finally starting to pay attention to the issue of climate change. When four-five hurricanes recently hit Florida in six weeks (to say nothing of other exceptional weather) people began to sit up. Second, people seem ready to try the new carbon markets which will start trading in Europe in January 2005, a readiness encouraged by Russia's decision to ratify the Kyoto Protocol which encourages the use of the carbon markets. Third, the control of carbon seems to be achievable with existing technologies combined with new market mechanisms. So, a clear need, a clear goal and a relatively simply solution all seem to be lining up together, finally.

- 5) **biodiversity markets** – By comparison with climate markets, biodiversity markets are more complicated and there are very few examples so far. There is an interesting agreement between Merck Pharmaceutical and the Costa Rican government, but so far as I know there is nothing comparable to Future Forests which matches individuals to biodiversity projects. Biodiversity is also harder than climate because there is no simple mechanism for monitoring biodiversity, comparable to the devices available for calculating how much carbon is coming from a chimney, or for directing payments to individuals or firms.

I also suspect that biodiversity may be harder because one needs to reward people for not using something, rather than for using it. What is the incentive for leaving gold in the ground, for example? For not cutting down a hardwood tree? And, there are all the complications of natural variability – such as annual rainfall, storms, pests and other natural crises – which means that the production of biodiversity is not always predictable or within anyone's control.

- 6) **Creating rewards for rural people** – The notion in my head is: can we find a way to use profits generated in the emerging markets for greenhouse gases to create a flow of income that can be redirected to African people working on the land? Further, can this income reward rural people for increasing the biodiversity of their home areas – both in wildlife and in food crops?
- 7) **What institution?** One of the important institutional inventions of the industrial age was the joint stock company, which organised financial capital to increase the production and flow of material things. What is the comparable institution for encouraging the increase of biodiversity in an ecological age? How might it work? What rights, what responsibilities, what rewards can be bundled together under what governance system with the object of supporting all forms of life, including our own? Who should be involved in this institution? On what terms?

In thinking about such an institution, I have only the following as a starting point:

- *Create an institution that is beneficial for all forms of life, that is*
- *an institution that can survive its founders for centuries to come, and*
- *whose working rules are simple, shared & self-reliant – with both costs and benefits shared on an equitable basis.*

25 October 2004

This is as far as my thinking has got, Dick, but since I began this letter in September, I have been trying to understand what important steps need to be taken next.

The first, mundane step has been to prop up my freelance income, which fell over the past few years, and to start looking for more permanent assignments (directorships or other part-time posts) that would give me a steady baseline income while leaving me enough free time to develop these new ideas. I am feeling comfortable with all that now, although there is still a long way to go, so that is something.

Beneath that task has been a second one: am I ready to commit myself to this challenge which will take a very long time to show progress? This letter speaks for itself, really, since this idea will just not go away. Whether I am committed to it, or it to me, it looks like a daydream I will work on for the foreseeable future.

Third, I have been trying to understand how the carbon markets might work and have been talking with business people who are, or might be, involved in them. This is a slow process, but little by little, I am feeling my way here and getting to know my way around. Again, there is a long way to go, but I have made a start.

Fourth, I have been testing the idea of creating a new institution that combines traditional African management knowledge and Western market mechanisms with various academics working in Africa. In early October, I spent 2 days at an Oxford conference titled “Trees, Rain and Politics” and tried out the ideas I have sketched here with various people, mostly Africans, all of whom were enthusiastic, some indeed very enthusiastic.

Fifth, I have been thinking about this letter to you! That leads me to what I think we should try to do next, although you may have some better ideas.

**Goal: meet in East Africa.**

Before next July, (i.e. a year since my last visit to Uganda) I would like to gather together the East Africans who have been part of the scenario work and who might be interested in and have something to contribute to this idea. There might also be a few others from outside the scenario project, it would also be useful to have along. However, before such a meeting can take place, various tasks need to be done.

### **Task 1: Draft an introductory note**

This letter has helped me to clarify my thinking, but it needs to be rewritten as an introductory note, that can introduce these ideas in a way that will make sense to the people we want to invite to our meeting.

### **Task 2: Talk to people**

I have spoken to you and Abdul Ndifuna in Uganda and also (by telephone) to Aidan Eyakuze in Tanzania. Aidan was one of two leaders of the TZ project (along with Abdu Simba) and is an economist and banker. Aidan immediately began thinking of what might be required to make this work in financial terms. Others need to be contacted and introduced to the idea. Does it make sense to them? Does it make enough sense that they would be willing to invest their own time & energy? How can we share costs, or raise money to support what we want to do? What skills do we need? Environmental knowledge, banking and financial knowledge, organisational and management knowledge, constitutional and political knowledge, knowledge of rural management and environmental understanding – all are forms of knowledge I am sure we need.

In Uganda, we have people with good environmental and rural knowledge:

Adul Ndifuna

Michael Iwadra, the hydrologist

Sophie Kerwegi (see below for her contact details)

You might know of others. Can you start to talk with people in Uganda to see what they think?

### **Task 3: Find out what has already been tried**

What models exist? What examples do we have a rural people being paid to increase biodiversity in their local areas? What do we learn from these examples? I know of the Costa Rican/Merck project, but there has also been some interesting work with *protea* flowers in the Cape area of South Africa. There is also the Campfire project that began in Zimbabwe (WWF ran that, I think) and a project in Zanzibar concerning the red colobus monkey. I believe there are other Tanzanian projects, but don't know anything about them. In Kenya, some friends run a project, which is very relevant, called RAE – Restoration of Arid Lands – in Baringo. It is aimed at reducing land degradation due to over-grazing, but has the corollary effect of bring back various kinds of wildlife. Critically, RAE has done a lot of work on creating new rules and land use agreements with people locally. In short, talking to the people we know, searching the libraries and internet and research institutions should help us identify other projects that have helped rural people earn an income by protecting and increasing wildlife. Identifying the people who have experience of these projects, and collecting the key reports in this area will be helpful.

### **Task 4 – Organise our first meeting**

If we find there are enough people who are interested in joining a 2-3 day discussion to create some kind of biodiversity institution/corporation/collective/cooperative (what will be the name we choose?), we will need someone to organise dates, logistics and communication and be paid to do that, or be willing to do it without pay.

### **Task 5 – Raise money**

Clearly, this work is not something any of us can finance on our own. So who can help us finance it? Should we take out a small business loan? Issue shares? Appeal to donors or environmental NGOs? How we finance what we do has serious implications for who we are, as well as for how we relate to each other and the wider world. We need to think clearly about this from the very beginning.

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I cannot think of anything else, Dick. This really is a complete dump of my thinking so far. Let me know what you think, either by email or by post. I'll send this to you both electronically and *par avion* and will send you a text message to let you know it is on its way. It has taken several months to move myself from talking about an idea to committing it to paper, but now it is done. Let me know your reactions. A friend of mine who is an inventor running a small company in California selling new technology to clean water told me that he tells his young scientists to "fail fast" when they are working on a new idea so that they do not waste too much time chasing ideas that have little chance of working. The same must be true of projects like this – let us also 'fail fast' if we need to, but stick out if it is worth the trouble.

All my best to you and your family,

*Barbara*

P.S. Sophia Apio Kerwegi is someone Gladys and I interviewed in Oct '03. She is a botanist, of your generation, who knows both traditional knowledge of plants and western knowledge. She has been using this knowledge to treat people with a variety of diseases (including HIV/AIDS) while also working with villagers to help them treat themselves using the botanical wealth around them. She is a wonderful lady you would enjoy meeting and someone I consider an essential partner if our 'institute' is to work. When we met, she was talking about doing something new, but I don't know if she has begun anything yet. In any case, please do try to talk with her and apologise for me for not staying in touch.

Sophia Apio Kerwegi  
Job Title: Senior Research Officer  
National Chemotherapeutics Research Laboratory