

# AGRICULTURE AND THE PAYMENT FOR ENVIRONMENTAL SERVICES

## LESSONS FROM COSTA RICA IN THE BALANCING OF AGRICULTURE AND ECOSYSTEMS

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### **Land and responsibility**

How often do those of us not actively engaged in agriculture point fingers at farmers for the damage they appear to be causing, be it a silted up river, habitat loss, or any of the many other ills associated with agriculture in the 21<sup>st</sup> century? I have and still do.

Indeed, many farmers are guilty of these crimes and more. For the most part they are individuals acting out of self interest - like most of us. However, how often do we as a society stop to critically reflect on the roles and expectations we place on those who supply us with the food that keeps us alive? We demand food at the cheapest possible price while still expecting farmers to also look after the environmental assets which in we all depend on such as soil, rivers, biodiversity and atmosphere. Of course farmers should be held accountable for their actions, but a question which rarely gets asked is: "Where does our responsibility as co-beneficiaries of their actions lie?"

A recent visit to Costa Rica, to learn about how that country has been so successful in simultaneously advancing social and environmental wellbeing, got me wondering if this small Central American gem could offer an answer to this question.

### **The Costa Rican Path**

In the 1970s Costa Rica was a rapidly growing agricultural economy with a pro-expansionist land policy which encouraged farmers to convert forest into pasture. These factors earned it the title as the country with the fastest deforestation rate in the world. Much like South Africa it was home to exceptional biodiversity that was being lost as a result of rapid agricultural expansion into environmentally sensitive areas.

Today things are different; Costa Rica has managed to craft itself into an international conservation poster child, while supporting its farmers and increasing social welfare. These gains have earned it the top spot in the New Economics Foundation's (NEF) Happy

Planet Index which is an international ranking which evaluates the environmental efficiency with which nations achieve human wellbeing. According to the NEF *'Costa Ricans report the highest life satisfaction in the world, have the second-highest average life expectancy of the Americas and have an ecological footprint that means that the country only narrowly fails to achieve the goal of "one-planet living"'*.

One of the keys to this success has been to acknowledge the value of the environmental services which land held under stewardship by farmers delivers, so that these vital environmental services can be better managed. For Costa Rica this meant looking far beyond property boundaries in order to understand what services well managed properties deliver and rewarding farmers who deliver these services. Examples of these services included watershed management for downstream users such as hydroelectricity plants, biodiversity management and carbon sequestration and storage.

As Costa Rica's pioneering minister for Environment and Energy, Carlos Rodriguez, explains; the result of Costa Rica's history of expansionist policy in was that farmers were in control of a large portion of the countries land and forest. Furthermore, they were being encouraged to clear as much forest as possible under what was effectively an 'if you can clear it you can claim it' policy. However, to those in control during the 80's and 90's it was becoming increasingly apparent that continuing down this path was going to result in more costs to the country than benefits.

Thus began the process of working out how to curb socially and environmentally destructive land management practices without jeopardizing the agrarian foundation of the economy.

As it played out, part of the reason for the problem - namely that farmers were in control of rapidly dwindling national/international assets - turned out to be an unexpected boon for both farmers and the Costa Rican economy. "We came with the idea that the forest wouldn't be protected until we were fully able to recognise the economic services they were providing to society," says Rodriguez.

The Costa Rican government realised that by compensating farmers for the environmental services they delivered they could help to secure these assets going into the future and assist in stabilising the rural economy by allowing landowners to diversify their incomes. This new window of opportunity allowed farmers to move some of their land out of production for international commodity markets such as beef, and into ecological services. What's more, by cashing in early on the growing realisation that local land management practices can have global impacts, Costa Rica managed to convert the restoration of local environmental assets into an exportable service and foreign income earner.

## How was this achieved and what can we learn from Costa Rica?

### *1. Begin by understanding the services and costs*

Up front it's important to think holistically about the services our farmlands deliver beyond the direct products they produce. It is only through a clearer understanding of the services that our land is delivering and to whom it is delivering these services that these national assets can begin to be better managed and marketed.

In the case of Costa Rica, for example, dealing with the heavy siltation occurring in dams as a result of upstream erosion was a significant operational expense for the country's private hydroelectricity companies - a private cost.

More often than not this erosion was a result of excessive logging and land clearance which also has an effect on global carbon cycles and climate regulation – a local, national and international cost.

Excessive upstream logging also resulted in reduced water quality and increases in flood damage to downstream towns and villages – a local municipal cost.

What's more the habitat and biodiversity loss incurred in the process negatively effected national beauty and hence tourism, the country's second biggest industry at the time (tourism has since become the biggest). Because biodiversity is not static, the negative impacts of habitat loss in Costa Rica has global impacts – thus habitat loss is a national and international cost.

### *2. Establish a formalised national accounting system*

The Costa Rican Payments for Environmental Services programme was passed into law in 1996 and was based on the principle that forests provide services for which the beneficiaries of these services should be obliged to pay. This legal recognition enabled the establishment of the National Forest Fund (FINOFIFA) which is a state body through which payments for environmental services can be collected from the wide range of national and international beneficiaries for distribution to those proven to be delivering these services. The initial offering by FINOFIFA of US\$34 million to 700 hundred landowners was financed through a national pollution tax levied on fuel and the international sale of carbon certificates. Since then the number of beneficiaries has been expanded and the income stream has been diversified to include payments from hydroelectric producers, water users and international conservation organizations.

## Conclusion

What this means for South Africa and the way we plan our agricultural systems for the future is that protecting the environmental services delivered by our nation's land and securing a prosperous future for our agricultural sector should not be seen as opposing goals. However, what Costa Rica shows us is that aligning these goals requires national acknowledgement of the fact that although farmers may be the stewards of much of our land we are ultimately all beneficiaries of the services which this land delivers and

therefore responsible for its maintenance. Acknowledging and rewarding the stewards of our land for the all the benefits we draw from their efforts is as, if not more, important than blowing the whistle on their misdemeanours. Indeed if we practice the latter without the former we are simply shedding our own responsibility and passing blame.

Gaining a better understanding of the anthropocentric benefits delivered by our environment is by no means a panacea for the socio-ecological challenges our agricultural sector faces. Indeed, many view valuing environmental services as a crude and conceited approach to improving the current situation. However, given that South Africa ranked 118 out of 143 on the HPI and that even relatively small Costa Rican farmers currently send their children to university, we should perhaps consider casting our eyes to this so called 'developing' country for agrarian inspiration instead of our traditional role models in Australia and the USA.