

Reducing the Effect of Deforestation and forest Degradation in developing nations (REDD) and the incorporation of the SEEBIF Initiative.

Abstract.

The natural forests of the tropics store vast quantities of carbon in their structures and soils. As all current methods to reduce and reverse deforestation have failed, REDD is one paradigm link in progress, initially a concept from the U.N.C.E.D., Earth Conference in Rio, and paralleled with the formation of U.N. Convention on Biodiversity to reverse the extinction process and align itself with aspects of sustainable development, "as if all life mattered".

According to the Internal Panel on Climate Change (IPCC) deforestation produces between 18 – 22% of the anthropogenic carbon compounds emitted into the biosphere annually. Reducing Emissions from Deforestation and forest Degradation in developing nations is an attempt to ameliorate this source.

The very nature of REDD is being developed into a agenda to address the current extirpation of these tropical forests by providing financial incentives to manage them in a manner for sustainability, and in doing so will slow and reverse deforestation. But is this programme limited only to this remit? What concern does it provide for the extinction the forests' biodiversity and to be a pathfinding mechanism for a reawakening of the real meaning of choice achievable sustainable development? The framework for REDD is still at an early stage of development. This paper will address some fundamental concerns and realities from an ecological consciousness to the very concept of providing funding for local communities, through self awareness initiatives to conserve their natural forests and to ensure that humanity as a whole becomes truly aware of its responsibility to itself, our climate and our biodiversity. This paper is based on the SEEBIF Initiative and it surpasses the current REDD programme insuperably.

This dissertation is not for the timid; it will ask some telling and heart rendering questions and put an integrated perspective into a global programme which has to be resolved, beginning at the UNFCCC conference, COP 15, to be held at Copenhagen in December 2009.

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REDD, biodiversity, choice achievable sustainable development, human rights, SEEBIF Initiative, United Nations Framework Convention on Climate Change, (UNFCCC), Conference of the Parties (COP), greenhouse gases (GHG), deforestation, degradation, United Nations Environment Programme, (UNEP), United Nations Convention on Biodiversity, (UNCOB), biome, biosphere, evolution, ecology, ecosystem services, carbon market, carbon credits, avoidance of deforestation, carbon sequestration, carbon storage, ecological and forest restoration, "sinks", "sources", "Oligarchs", Illegal and Sunset Deforestation-Logging, Ancient or Frontier Forests, Soya, Beef cattle, Agri-Industrial Palm Oil, natural capital, social and human capital. Being Responsibly Aware.

The Paper

Reducing the Effect of Deforestation and forest Degradation in developing nations (REDD), and the incorporation of the SEEBIF Initiative.

Introduction

It is a joy and privilege to stand before you all, my peers whom I realise possess levels of academic and professional accolades at which I am only able to marvel! For as a humble and enduring (....one has to be) school science teacher of more decades than I can remember and having had the privilege to be able to open the minds of the children and young people I have taught and helped develop into those members of this small part of our human family an integrated awareness of our ecological and social concerns, for this privilege I give thanks to them.....and is one main reason I am standing here in front of you today.

Imagine a huge jigsaw puzzle which has 1.75 billion pieces, each piece representing one hectare of natural forests in the tropics. (Ref1). Each part is a wonderful picture of one of the few tropical biomes represented as part of our biosphere. BUT the individual parts are in disarray. WE need to seek out and place these parts together in a way which is fair and equitable for us all; for the benefit of all life on our planet.

According to the Intergovernmental Panel on Climate Change (IPCC) deforestation produces between 18 – 22% of the anthropogenic carbon compounds emitted into the biosphere annually, equivalent to the total emissions of the all global transport systems. Reducing Emissions from Deforestation and forest Degradation in developing nations, (REDD) is highly regarded as one of the important measures to combat climate change, by providing financial incentives to those countries which are effective in the radically controlling the deforestation process but for many it is also a very contentious programme. Can REDD answer this concern or at least partly? And is it just about the climate chaos era we are now entering? I would like to examine an introduction to one aspect of the whole argument and make suggestions for a framework on which we as a human family can address this most opportunistic yet relatively unknown global initiative, with the acronym SEEBIF.

History

Since its origin after the United Nations Conference on the Environment and Development held in Rio de Janeiro in 1992 there was serious interest in the progression of increased conservation of forests in the tropical regions during the formation of the United Nations Convention on Biodiversity programme. It was not until the Conference of the Parties 11 at the Montreal Convention was the REDD programme established as a formal topic at the eleventh session of the Conference of the Parties (COP 11) in respect of the United Nations Framework Convention on Climate Change (UNFCCC) in December 2005, a mere 43 months ago.

So in a relatively short time period considering the explosion of papers and counter arguments and proposals; the assimilation of all detailed definitions of climate change glossary terms together with "carbon market terminology" which we have all heard and would fill textbooks on their definitions. So contentious were the concerns that at

the Bali UNFCCC - COP 13 conference in 2007, an agreement was reached on “the urgent need to take further meaningful action to reduce emissions from deforestation and forest degradation”. Within the last six weeks in Bonn the UN climate negotiations, or to give the official title, the thirtieth sessions of the UNFCCC Convention subsidiary bodies – SBSTA and SBI, sixth session of the AWG-LCA and eighth session of the AWG-KP, REDD will feature in several parts of the negotiations. And unfortunately these government delegates avoided the issues, argued about trivialities and failed to come up with meaningful ways of addressing climate change within the framework given to REDD in respect of its original intentions of COP 13. It is no wonder that the whole framework requires reassessment.

Main arguments

Will REDD answer this concern or at least partly as it is highly regarded as one of the important measures to combat climate change or will a complete new protocol be required? I contest that a completely new Initiative will be required as argued in this paper. For just three days ago, at a CIFOR meeting in Jakarta, the country delegates argued about certain fundamental aspects of the REDD programme, some were realistic, but some very contentious. (Ref 1b). The underlying issues were examined to identify a pragmatic approach to resolving some of the serious issues this programme is intending to solve. My paper is an introduction to identify these concerns, in particular the concerns of local communities in respect to their stewardship responsibilities of ensuring a “fair trade” income from their work on our behalf and to make the biodiversity of our forests a permanent aspect, by ensuring that the powerhouse of evolution continues. One top down approach namely, “The Forest Carbon Partnership Facility” (FCPF), a contracted programme by the World Bank to foster social capital amalgamation into natural capital “projects”, has been subject to conflictual concerns by their inability to interpret custodial stewardship of forest communities within their prescriptive communal lands.(Ref 3). The world is seeking a fundamental answer to this crisis; the SEEBIF Initiative will I hope bring the necessary response required.

So those arguments about the input REDD might achieve were continued and thrashed out in Bonn, six weeks ago. Opinions varied because for some REDD is only to sequester and store the anthropogenic carbon gas compounds which we have poured unnecessarily into our atmosphere. (Ref 4) For about one-fifth (18-22%) of man-made or anthropogenic CO₂ emissions originate from deforestation. (Ref 5). The REDD programme is thought to be regarded as one of the more important measures to combat climate change for in effect its proaction can help solve more than it’s initial remit. For the uninitiated, it beholds us to take note, prick up our ears and become fundamentally aware...a word which will be used a great deal in this paper and for which I will not apologise but give good reason.

So may the SEEBIF Initiative have fundamental answers to the many questions which so far has alluded the developing REDD programme? Specifically the essence of this paper is controversial. It assumes that for the sake of equity a “bottom up” approach, at the lowest structural level of executive control, will be the basis for its validity. In addition and included within this Initiative is the absolute need for an international obligation of legalising the constitutional land tenureship rights of native and local

communities as obligatory guardians living within and surrounding tropical forest landscapes. A characteristic viewpoint relating to this Initiative from within one nation, for which I hold a particular interest, Indonesia, is the role which the "Heart of Borneo" programme, (shared with Malaysia), and another on Sumatra, the, "Harapan Project", which to all intents and purposes recommends characteristics of the view I am attempting to provide in this paper. Both these evolving projects are similar but over different spatial areas and with the full plethora of stakeholder involvement. Their parameters are similar but not inclusive to those of the Initiative I am presenting in this paper and as such there are contentions within them which would not be of a direct issue of concern owing to the structure of this Initiative being of a paradigm level of integrative and pragmatic realities. (Ref 6, Ref 7.)

Thus my Initiative addresses aspects of inappropriate development across tropical countries containing natural forests, but with particular reference to one country for which the global community is now focused on because of particular concerns. For Indonesia is sadly, on a global scale, the third largest emitter of Greenhouse Gases (GHG) and has the dubious distinction of providing the highest levels of deforestation in comparison to its forest extent. Indonesia with around 50% forest land cover has a very high interest to implement and benefit from the REDD mechanisms due to high rates of deforestation and forest degradation. However the challenges remain how the programme would be governed to effectively reduce "greenhouse gas" (GHG) emissions and implement in a cost-efficient manner methods to benefit all constituents equitably. Or in terms of the "top down approach" is to ensure that all "stakeholders" are rewarded for their efforts...very laudable. And this is the very spirit of the developing REDD programme to date which has not addressed this one aspect of its remit. (Ref 8) Legalised carpet bagging of communal lands, e.g. on Borneo, where Adat Law has been culturally enacted over the past centuries would under the **SEEBIF Initiative attribute the return to a classical guardian stewardship but with new and internationally agreed constitutional rights to be guaranteed unconditionally.**

To date the local courts are initiating support for groups of Dayak peoples of Sarawak in their pursuance of their new constitutional rights. But these are ignored with impunity by misdeed developers who throughout Malaysian Borneo in association with their local and central government Oligarch masters are still attempting their silly little "development games" therein. In providing the Dayak communities full constitutional rights through the evolving SEEBIF Initiative they will be able to redress the debacle of deforestation which has already wrecked half of the "Treasure Island" of Borneo. (Appendix 1). What is proposed in this area of insular SE Asia can be facsimilated across the entire tropical forest nations of our planet.

Without a fundamental change, the period of climate chaos we are in will not go away. It will not be ameliorated by our current political and economic policies branded as structured growth based on the "casino" economic policies. Our so called "tomorrow" will not be a reflection of our past success as a species if we do not SERIOUSLY address this our number one act of absolute terrorism..

We are conscious of the need to redirect our very acts of existence to enable our global society to live together more harmoniously and compassionately than ever before. And we need a paradigm model to change our psychology....maybe a word or metaphor.....something to denote the beginning of an absolute change. A set of "BRA" Words, i.e. **"BEING RESPONSIBLY AWARE"** could be used to describe our communal

actions in a paradigm manner. There is no doubt in this very auspicious room a number of professional colleagues who have knowledge of the climate chaos situation far in excess than my insufficient understanding on an overall basis but I will say this and it may shock or surprise many of you that without the "BRA words" being understood by our global human community and acted upon now, then I am afraid we will be in a position of actual biosphere chaos within what many are saying will be a very short period of time, possibly less than eighty months! (Ref 9)

The Kyoto Protocol of 1997 **has not become fundamentally assimilated** into the mindset of our human population. Only after eleven years did Australia and twelve did the United States take the responsible action of becoming signatories to this Protocol.....So our "BRA" words have only just kicked in to these two nations which per capita are the highest polluters of unnecessary carbon compounds superfluous to our biosphere. "Assimilation of deed with thoughtful speed", they are not...but nor are most countries of our world because I contest they are all "literally frightened to death" to take on this ultimate responsibility. But do not take my word; let us seek the known evidence. Possibly the word of Ahmed Djoghlaif, Executive Secretary for the United Nations, Convention on Biological-Diversity, (UNCOD) may be more relevant. His sponsored report on the level of the relevance of the "BRA words" to all humanity across our world made alarm bells ring!!! To be honest, 97% of our human family, 85% of our political masters and 57% of our educators were not faintly aware of how we can address the looming debacle of equity, climate chaos, and the end of natural evolution. (Ref 10). Are you shocked, as I was?

I would like to tell you a very short story, which I believe is of relevance. Twenty two years ago as a Green Parish Councillor, my local Parish Council namely Calstock (in the Tamar Valley in Cornwall) was presented with an outline plan for a development which included the removal – the deforestation - of small woodland of about 1.5 hectares. Would this loss be of concern to our local community? Why is this tiny woodland a forest representative of what was happening around the world at this time? Not much general interest you might think; it did not have high so called conservation value (which in reality is a very vague term) but why should I need to be concerned; why was I so interested? My concern and perseverance held sway because enough local people attended a local planning site meeting and convinced the planners that our values which were held in deep respect did actually count!.....This little woodland was saved; its value was more than economic, a viewpoint which will be examined in more detail later in this paper, in areas far from my home.

But are the BRA-Words relevant to this Initiative, and how could we reassess its importance in a holistic manner? Is the lack of the BRA-words in general the reason why REDD is not a common household name in similarity with say, "climate change", (dare I say chaos). But before venturing further I feel we should address the issue briefly for the amount of information now available in their titles and programmes would fill an entire library but I will mention examples for the uninitiated amongst us.

For although this paper, is about an alternative to REDD, in absolute reality it is about our relationship with trees, not one but about a trillion, in the natural forest communities in which they live and the way that for them just to be alive is possibly one solution for our planet's, "Saving Grace". (Ref 11) For **without trees there cannot be any SEEBIF Initiative**. So if we cannot address the forces which make **trees in their forests worth more alive than dead**, then the considerable task of catastrophic

climate change and biodiversity holocaust, we are now having to address will be subsequently more serious than at any other time in our history; indeed it will I believe be insurmountable. Currently and legalistically REDD is exclusively about the forests of the tropical realms even though the overall science involved affects every tree in our biosphere. It is also about the local, native, and indigenous, communities who should be provided with international and legal constitutional rights to interpret control of these forests in a manner equivalent for their sustainable survival and for a benefit for all humanity. Such a relationship has evolved in many cases over decades and for some over centuries during the process of social and cultural evolution, to provide for them an improved purpose for life as one of the integrative processes of the SEEBIF Initiative.

So what is this premise about our trees.....well they sequester and store carbon, comprise diverse plant organisms, are critical habitat for other organisms, (perhaps up to one thousand species per individual tree), provide ecosystem services (hydrology, soil conservation) including the oxygen we all breathe, have significant ancillary socio-economic benefits, impart and support cultural and spiritual meaning, and options for future generations to sustain themselves. And they play a role in helping ameliorate climate chaos. And yet to our "casino economists" assimilate the money making commissions as being relevant during the process of sequestering carbon.

*"I think that I shall never see
A poem lovely as a tree".....
A tree whose hungry mouth is prest
Against the sweet earth's flowing breast
A tree that looks at God all day
And lifts her leafy arms to pray*

*A tree that may in summer wear
A nest of robins in her hair,
Upon whose bosom snow has lain,
Who intimately lives in rain
Poems are made by fools like me,
But only God can make a tree"*

(This simple yet ephemeral poem of emotion about trees, by Alfred Joyce-Kilmer.)

For we western protagonists trees aspire us to our highest emotional intellect. If we were here to discuss their values we have only to attend the hundreds of local planning committees on application for their removal, to understand the fight we would be up against, especially if we were a developer! However our understanding of trees is miniscule compared to indigenous and native peoples globally. For the Dayak on Borneo, the Surui in the Brazilian State of Rondonia, the Kuna in the Choco Forests of Panama and Colombia and the Baka of Cameroon, Central Africa...(to number a few out of the thousands globally), for they are the true masters of their tropical forest and therefore our biodiversity universe. For we in the "carbon polluting nations of the world", do not in our widest acceptance of known wisdom have a level of knowledge and understanding these folk possess in helping to reverse and stabilise our current ecological and climate chaos due to **our selfishness we have promoted most particularly in the last sixty years.**

....."And yes our so called love for trees and forests has significance, the symbolism and the substantive significance – of planting a tree has universal power in every culture and every society on Earth, and it is a way for individual men, women and children to participate in creating solutions for the environmental crisis.".....

Al Gore, "Earth in the Balance"

I therefore **declare that awareness and then to understand** is at the very heart of the title of this paper.

“Though REDD can take many forms, the key idea is that businesses or governments in wealthy countries compensate those in the developing world for preserving their forests, either by paying into a fund or by purchasing credits on carbon markets.” (Ref 5)

This is the traditional and might it be said the conservative view. But this begs the question if we are part of the global society which has created the conditions for the climate chaos then we as a society should be responsible for a respective response. We make up “businesses” and “form governments”....it is we, especially those of us who as individuals emit over three tonnes of carbon annually into the biosphere, should be responsible for constructive proaction to halt this situation. We should be taking on this financial responsibility collectively and also to decide how this money should not only be disbursed, but by how much and to whom..... And let us not get faint hearted about the financial responsibilities either. For it was less than six months ago when our own UK Government decided to support the “casino economic banking system” with **our** money (now and in the future) of a mere £1.30 trillion...and yes you did hear correctly, (Ref 12). So if we as a society in this country and across the say G20 countries are made aware of our responsibilities what sum of money or finances would we have to raise to support the SEEBIF Initiative? Well actually not a lot in reality in comparison to the alternative consequences of inaction.

One base level option can be equated to the UK Government report by Sir Nicholas, now Lord Stern, (Ref 13) who suggested that 1% of global GDP should be used to counter the debacle of devastating climate change. In consideration that 18% of climate change is due to the deforestation process in the tropical it is only logical and with equity being a constant in this whole argument, that insurance funding equivalent to this level should be directed to the REDD process of this level of support on an annual basis. So what would 18% of the 1% of global gross domestic product. (GGDP) as in the order of US\$60 trillion. (Ref 14) The 18% figure as given equates to approximately US\$108 billion for funding the annual REDD programme. **In reality this is US\$1.00 per week per person who is classified as a citizen of our G20 countries.**

Is this an equitable assessment? Some visionaries have reflected that this sum as aforementioned is completely derisory and as such this may have to be taken into a pragmatic formula to realise the truth behind the financial prerogative of the Initiative. It has not been raised as an important financial incentive package to date but we must now remember that this Initiative is evolving and as conditions on our biosphere worsen then an equivalent and **more realistic sum will be needed and raised.** (Ref 14b). In order to ascertain this reality we can now compare briefly this to the comparison to what our, “casino economists” suggest as a fair payment for carbon for every tonne (metric) sequestered and stored. Estimates vary depending upon where one seeks guidance. Two estimates come to light: US\$5 carbon per tonne (ct), (Ref 15) up to US\$117ct. (Ref 16) Quite a variation. However just for convenience let us take the lower figure which was assessed on the so called EU carbon trading market only nine days ago. In doing so these figures are within the financial remit of those given by the Stern Review Report. So even by this report there is some “equity and equivalence” in one foul swoop!

So least we forget the essence of this paper, for which without which there can be no trees for the SEEBIF Initiative, which is the power of photosynthesis. Photosynthesis is the most important biochemical reaction in our biosphere and our green plants or autotrophic organisms, (especially, but not only, our higher spermatophytic phanerophytic organisms) produce on an annual basis across our terrestrial biomes a total of **62.6 PgC. of Net Photosynthetic Primary Production, (NPPP) to increment on the total Net Photosynthetic Primary Biomass (NPPB) which amounts to 652 PgC.** (Ref 1). **Tropical forests have a global distribution of 1.75 billion hectares, and a total carbon biomass mass of 340 PgC and a total Net Photosynthetic Primary Production (NPPP) of 21.9 PgC.** (Ref 17.) We can now observe by simple mathematical conversion that **the tropical forests contain 340 Gigatonnes (Gt) of carbon as standing biomass; whilst their NPPP is equivalent to 21.9 Gt of carbon. On average every hectare of tropical forest contains just less than 200 tonnes of carbon and produces on an annual rate an increment off 12.6 tonnes in each hectare. (The actual total GPPP and NPPP is double this figure.)** (Ref 17). This equates to all the many biomes which comprise our tropical forests. (The total global agricultural-crop productivity accommodates only 4.0 PgC annually!)

Lest we forget all forests are conduits for carbon sequestration, storage and a sink into their own biostructures and for their assimilation into soils in the superior lithosphere. The tropical wetland and peatland soils notably in Amazonia and in particular in Insular South East Asia are noted as a centres for amassed concentration of carbon in their soils of orders of magnitude above that stored as sinks in natural forest's biota (both above and below ground biomass). (Ref 18) However currently the storage and sinks that such soils provide, is of great concern for in the case of tropical forests, their associated soils are part of the biome and their loss is of very great disquiet particularly in view of the quantity of direct carbon emitting compounds released, including methane and other oxides of carbon.

The distribution of tropical forests in their respective biomes can be accessed particularly on the F.A.O and U.N.E.P – World Conservation Monitoring Centre websites which provide interpretive analysis of their distribution and status. In ecological terms the distribution of forests in the tropics is aligned with that of the NPPP of these biomes in the tropical regions. Ecology does indeed rule. In historical times and under natural conditions tropical forests distribution would have been between 60-80% more expansive than their current distribution (Ref 19.)

The causes of deforestation both global and in the tropical biomes and are allied with the causes of misdeed, and is a global phenomena. When a natural biome is given little value apart from its conversion to a product in the global market economy, then it will be converted to an alternative land use, without thought of its actual natural and associated social capital value. Many advocates of the real value nature provides for humanity's existence, have accredited the value of natural biodiversity and ecosystem services attributable to tropical biomes as being equal to a minimum of 15% of the Global Gross Domestic Product (Ref 20). From a productivity index this valuation equates to greater than the 500% of the value of the current outsourcing of the commodity trade from all tropical forest nations in respect of their so called, "economic value". (Ref 20b). The theft of the "ownership of the natural forests which has been "carpet bagged" by the state oligarchs is the fundamental reason why this new Initiative has to be addressed

from a “bottom up” (or arising conceptual level approach) and **it is fundamental**. There are innumerable institutes of repute which will describe the causes, but FAO, UNEP/WCMC and the independent Global Canopy Foundation and its scientific alliance with the Global Canopy Programme (Ref 21) have detailed the main culprits and causes of deforestation.

So the next time you furnish your home or garden with rainforest timbers of “reputable origin”, eat beef, drink your soya or eat tofu, use an aluminium can and in particular consume 20% of products in your larder which contain industrially produced palm oil from Borneo or Sumatra, Amazonia or Congolia, it is due to the extirpation of these wonderful natural forests, whose natural value to saving our planet from, “climate burn” is beyond our imagination. (Ref Appendix 2) By outsourcing these commodities of our desire, we are indirectly responsible for the main reason that ownership of closed natural tropical forests are controlled by these tropical nation’s government authorities, or “oligarchs” either local or central, and their rule is often in the manner of an “iron-hand” level of despotic “statute”. Beginning with “Fiefdom” attitude of the Suharto regime, the “Bob Hansen’s” of East Kalimantan and the newly arisen illicit classes of Borneo; Barito Timbers exterminating life in the peatland rainforests and soil in West and Central Kalimantan, with their Oligarch colleagues of Abdul Taib Mahmud across the border in Sarawak Malaysia. APP continues to advocate an extirpation of the peatland rainforests in Riau and Jambi Province in Sumatra, Indonesia; where Samling Timbers with those aforementioned have caused the extirpation of ten of millions of hectares within and external to Malaysia and Indonesia, inclusive of the current slating of the frontier forests here and now also in West Papua, whilst completing the forest extermination process in West Africa, via Liberia and Sierra Leone.

Rainforests have always been undersold many times than their real value (Ref 22). Similar “oligarchs” also exist in Africa and Latin America but these persons are not particularly special, for in a real economic sense are “poorly educated”. They have devalued their rainforests natural and social capital to a level which defies logical imagination; have caused the disappearance of hundreds if not thousands of local and international campaigners (including Bruno Manser) and even devalued their financial wealth of their bank accounts in Switzerland by a factor of unknown proportion, because of their indifference to ecological realities.

Both Malaysia and Indonesia have lost upwards of 90% of their income from the anachronistic and sunset economy of illegal “deforestation-logging”. Such criminal syndicates are known to launder their illegal profits into Palm Oil developments which use the assets accrued by “natural asset stripping” of the real natural capital value of the forests which no longer exist, providing “concentration camp” industrial areas of destructive development. (Ref 23). In contemporary times any new Palm Oil developments are being sponsored by foreign enterprises external to Indonesia? It is because the costs accrued from the deforestation products are now commercially extinct. There are no such high valued forests remaining, apart from those in the Heart of Borneo as aforementioned. Ironically Indonesia has deforested itself to economic chaos, yet at a time when their remaining natural forests will have a new role to play. With respect this has to change, not only in SEAsia but throughout the tropics. Extirpation of these primary tropical forests in their entirety will come to fruition within a framework of between six and nine years and this is why we need to re-establish an holistic model of development, for then and only then will the programme of REDD work. But is it capable of fundamental reassessment for there is too much at risk for it not too.

The Initiative advocated in this paper contains **three fundamental realities**.

- That the **avoidance of deforestation** of natural forests has to become a natural phenomena (Ref 24)
- The **sequestration and storage of carbon**. The NPPP within a particular forest biome (and its variant associations) has to become a process of inevitable reality, and where avoidance of deforestation is an anachronism.
- That the substantial areas of degraded forests where there are opportunities for **promoting the dynamo of restoration and succession for the full assemble of future natural forests**.

Avoidance of deforestation. The premise of this paper is to assimilate this very important function into the sequestration and storage process. Deforestation of primary or frontier forests is by far the most repugnant and nefarious act of biodiversity and ecological apocalypse. It has to desist and do so NOW. This paper suggests choice achievable sustainable development support for communities to reserve such areas for natural processes alone. (Ref 24). The main remit of this Initiative is to avoid deforestation and as such without this fundamental responsibility then the whole carbon amelioration project would be scuppered. The biggest argument to resolve is the relationship of the quantity of carbon emitted during the deforestation and degradation (dad) process from all tropical forests in relationship to its value for carbon tonnage (ct). The figures given that deforestation and forest degradation emit 18% of the total carbon emissions, equates to approximately 1.5 GtC, (Ref 24) which is equivalent to direct extirpation of over 75,000kms² of tropical forests annually. (Ref 32). Degradation factors increase this level by an additional 100%! Those countries that show responsibility by not deforesting would not benefit from such an interpretation of financial support in a respective REDD programme, if there were financial payments **just** for the avoidance of deforestation. Indeed the new Initiative proclaimed in this paper has no direct relationship to the avoidance factor as this is axiomatic and focuses the pragmatism to the second and third main factors.

Sequestration and Storage of carbon NPPP. This is one of the main fundamental parameters for the implementation of this newly developing SEEBIF Initiative. When an international agreement is made for the level of a carbon levy, as aforementioned, it can be constituted into international law, and then we will come to know and be thankful that we have at last taken our responsibilities seriously, in respect of this Initiative. By conferring on the natural forests therein a legally binding level of financial support for each carbon tonne (ct) sequestered and stored as a "sink" the initial and one fundamental practise of this Initiative will be activated. It must be realised that this financial protocol will be associated with the other prerequisites this paper is representing and as such tropical nations will benefit by further additional activities as will be expressed. This method is fair and equitable and should be taken as a serious means in helping to resolve the financial needs of those nations involved in the current outsourced commodity products which from their acquisition have caused the deforestation process initially. For in reality **this** element of the Initiative

is basically about carbon sequestration and storage and there are few regions in tropical nations which do not have this facility. The Initiative will provide a re-adjustment to include all forests of the tropics, because all trees sequester and store carbon.

Restoration of degraded forests. Throughout the tropical nations of our planet there are between 800-900 million hectares of degraded forest lands. (Ref 25) This land has the opportunity of being returned to natural forests and for some form of equivalent land use for local communities. (Ref 26) Tropical landscapes should furnish contiguous natural forest interspersed with areas to provide for human development goals which are within the social capital remit under sustainable development models. This is axiomatic. Funding for natural forest expansion in such regions could be financed within the new remit of this paper inclusive of an extension of the carbon input levy which can be guaranteed against the carbon sequestering and storage financial facilities.

In consideration that 18-22% of climate change is due to the deforestation process in the tropical (and sub tropical environment), it is only logical and with equity being a constant in this whole argument, then an **insurance protocol funding**, (as described and aforementioned above,) equivalent to this level of input should be directed to a **Socio-Ecological-Ecosystem-Biodiversity Insurance Finance Initiative, namely SEEBIF**, which has a structured equity framework.

Social–Ecological- Ecosystem–Biodiversity–Insurance–Finance, the SEEBIF Initiative.

- The term, **Social (S) Capital** is used with an integrative inference because of the cultural evaluation of its meaning to the societies in which the Initiative will be focused. The description of Human and Social Capital has for the vast majority of local societies in the tropical forest countries no strict delineation, compared to the same differences which exist in a more mechanistic meaning from a western viewpoint. (Ref 26b). However this Initiative will provide for them a fundamental right, as both human and social (or community capital), to gain a certain level of income, based on a concept of a choice achievable and a sustainable use of their natural capital of the biodiversity, in association with the ecological and ecosystem services which interplay holistically in the local communities which would be supported by a new, incorporated and pragmatic legal constitutional reality. For this Initiative to come to fruition we will use our common insuperable abilities to negotiate, cooperate, and interact with the known ecological, ecosystem and biodiversity scientific methodologies in relationship to our understanding of a constructive and conclusive interpretation of climate science. This interaction must play a complete holistic role in order to make this Initiative become a serious paradigm shift in our relationship to this whole situation.

The human communities within and surrounding these great panoplies of nature require our admiration and not platitudes by disallowing centralised oligarchs of any tier of government fundamental control. The SEEBIF Initiative can resolve this process and control the anachronistic input of such Government Oligarchs irrespective of their level of hierarchy. Out of respect, all hierarchal tiers of

Government should be part of this initiative: they should be "shared stakeholder" partners **BUT with the direct executive governing statute attributable to community councils with an observer from the SEEBIF country executive**. The regional and national government attendees should be official observers with non executive powers and be inclusive of a UNFCCC/UNEP/UNCOB team. Only then will the **pragmatism of the Initiative be overwhelming**, in the same manner of interpretation which exists in the United Kingdom with the supportive legal framework of the Sustainable Communities Act. (Ref 30b). For it will completely axiomatic that the outcome will be choice achievable sustainable development....something our own society could follow in their constructive shadow!

- The overriding capital value of our tropical forests, as with all biomes of our biosphere, relates directly with the capital in nature or to put into the more appropriately used description, the natural capital value. The natural capital value holistically incorporates that of the **ecological** and **ecosystem services** interacting with the natural biodiversity heritage. For in the natural forests of the tropics, in providing a "**natural Ecological**"- (**Ec**) and "**integrated Ecosystem**" - (**Es**) services of an unequalled complexity the forests themselves are embraced with a level of **biodiversity (B)**. Together these natural factors or supreme parameters, are so essential to the whole SEEBIF Initiative that in not having their role inclusive would be at fault, let alone scientifically suicidal. The Initiative is so revolutionary that the secondary indirect affects are virtually beyond our imagination of importance. (Ref 20). Many others including my colleagues at the Green Economic institute believe that the natural capital of our tropical forests is currently undervalued by a fact of ten! (Ref 20)
- The (**B Biodiversity, in all our tropical forest biomes is of an** unparalleled status, (Ref 1, 20 ,20b) and provides all the natural living capital "wealth" of living organisms which provide an ecological link, (**Ec**) of the an insuperable level of integrativeness. Until now this inter-relationship **has not been valued holistically**. (Ref 20, 20b, 27).

The living organisms, as stated within SEEBIF have been the cause celebre for a innumerable number of good hearted nature conservation bodies which have been associated with literally fighting a, " regard action" for nearly fifty years. (Appendix 1) Such organisations have informed and educated three generations of individuals around our world and very few have not heard of the major players but alas although attempting a "fortress firewall" they are and will continue to be unsuccessful in their laudable efforts on our behalf. However with an **holistic revaluation** of the natural capital containing our biodiversity, the paradigm shift favours our living organisms and the organisations that at last can reclaim the moral high ground because we now know that they were and still are correct in protecting them for their unconditional value, be it biological, spiritual or utilitarian. (Ref 20, 20b, 28). The significance of (**B**), as part of the natural capital cannot be assessed exactly at present until further biodiversity and synecological evaluations are measured. In reality and unfortunately this will take an inordinate amount of time together with a paradigm shift of our communal attitudes to the real natural value of tropical forests. **Time** is unfortunately the most valuable commodity in regard to these wonderful forests as much as the natural capital.

It is intended that **with the inclusive arguments presented in this paper and the global broadcasting of the value of this Initiative, such actions will promote the essential momentum of change which has been necessary but not forthcoming during the last sixty years.** The only undervalued input is the comparable value of the carbon which has been under assessed by a factor of five at a minimum. When the scientific rationale of identifying the biodiversity and the ecological and ecosystem service values in the tropical forests is provided with a quantifiable assessment which is **only** based currently on the price of carbon tonnage sequestered and stored, then in reality the absolute importance of the biodiversity of these forests, which has been assessed as at least one half of all the biodiversity in all biomes on our planet. Therefore their true value can be hypothesised as to be one half the total value of the natural capital present throughout the entire biosphere. (Ref 20, 20b). What makes this Initiative exciting is that it will open up a paradigm dimension of scientific investigation of so huge a magnitude it will make past previous enquiries into the nature of ecological, biodiversity and human social systems in tropical landscapes pale into insignificance!

- The SEEBIF process will be providing an **Insurance (I)** in maintaining the natural and social capital within these forest of our tropical forest biomes; the social capital of local communities will bring a new and conceptual meaning to meeting human development goals, through choice achievable and realistic sustainable development methods. For every year that the forest's natural cover and the **B** and **Ec** and **Es** parameters are perpetually maintained, the levels of carbon storage will increase, thereby increasing the level of funding as given below in (**F**). Again this is an exciting situation as the funding will not only provide the sustainable continuity of the Initiative but will led to greater development goals being completed for reasons of greater international cooperation and commitment to a unified act within an integrated purpose.
- The method of **Financing (F)**. A carbon levy will be provided with a pragmatic and equitable means to address deforestation in the tropical nations of our biosphere. SEEBIF will be able not only to maintain but expand the pragmatic reality of ensuring that the biodiversity within these forests will be of a permanent nature. Nature can really succeed in both an ecological manner and for the sake of life's "intergenerational children". A conceptual shift of allowing us an insuperable understanding of the BRA Words will provide a glimmer of hope initially, for our common survival, if we really seek an inhabitable and biodiverse world. **Financing (F)** the Initiative as given will promote all aspects of Avoidance of deforestation, Sequestration and Storage of carbon, and the Restoration of Tropical landscapes into natural forest regions. Integrating these three fundamental realities into SEEBIF will hopefully resolve some fundamental questions which have been asked in relationship to the whole development process in tropical forest countries. And shamefully they have been answered in the following way:
 - the debacle of social and economic disharmony;
 - unparalleled levels of the extirpation of the vast array of the incumbent biodiversity;

- and the ecological obliteration of natural systems of an unequalled intensity in most tropical forest landscapes.

One fundamental reason why these “results” have occurred is due to the highest conceptual level or top down approach argument **which to all intent and purposes has failed to address the so called development process, and has failed miserably.** However we must not confuse such failures with all the wonderful and compassionate input which the United Nation’s operational organisations, and the myriad of magnificently motivated Non Governmental Organisations (NGOs), to the compassion provided by international charities which have afforded such pragmatic help to alleviate poverty and deter ecological devastation. Sadly the current “result” is axiomatic. SEEBIF cannot answer all the concerns in the tropical regions but it can offer a new and fundamental foundation which can be effected by all humanity because of the direct threat “climate chaos” will burden us all in every biome with looming catastrophes. This I am sad to say is the reality which will make all our lives, “hell on earth”.... We have to address this ultimate serious issue, and address it we must **NOW.**

With all due respect, the SEEBIF Initiative is **too important not to be successful.** This Initiative as presented here and to be developed, should be introduced as a **constructive principle in its own right, and with utmost action.....** (Ref 29, Ref 30, 30b) We must all work together to make the BRA “Words” a fundamental reality for us all within this Initiative, and beyond.

We must ask therefore this fundamental question is 97% of “our” human family guided by our inertia. **Because all the knowledge in the world without being responsibly aware of its reality is worthless.** Have we really failed “Our Common Family” or are we who are in the know, going to act on our awareness. In effect, it is we as knowledgeable individuals who are going to have to **barrage with factual scientific, accepted and popular truths to the media centres of Central and Local Governments and Community Council’s across our world, harry the one million global NGO’s who would support this Initiative, deluge the global news broadcasting organisations and demand on behalf of us all that the SEEBIF Initiative, as a singular protocol, be assimilated into popular global culture as an assurance for the perpetuity of us all and our tropical forests.** The “domino” affect will be remarkable. It sounds a daunting task but it is not. In the event it will be as we are speaking with our neighbours and passing on this information as of a “Chinese Whisper”....from which literally miracles can happen.

So now we can envisage a conceptual shift in the manner by which we can help over 25% of all “our family” (60 million being native peoples) in allowing them the fundamental right of a revenue assurity from the SEEBIF process. But will the SEEBIF Initiative be observed as just another liberal approach to be an Overseas or International “hand out” mechanism for the “backward, poor and destitute people” of tropical forest countries who continue to deforest for “fibre, fuel wood and food space” and in most cases, until now being directed by ill perceived and unsustainable models of development devised by the Corporate Boardrooms in the country capitals of the G20 group of nations. **The answer to this is a deep-seated NO!** The reason being is that these forests are providing a **material service** which to date has been completely ignored

and has led to the nefarious activities which have accrued to their demise, particularly over the last 60 years

Now is the time to **reconcile our philosophical development differences**. At UNFCCC-COP 15 gathering in four months time, there has to be a no recycling of the "Usual Suspects" of inertia which guided and weighed down its predecessor protocol, namely Kyoto 1. Administrative protocols have to be redesigned. For if we really believe that the normal routes of development accomplishment will give a real momentum to change, I feel **we are sadly mistaken**. (Ref 31, 5)

This Initiative can make a paradigm shift in both attitudes and outcomes for all tropical forest nations. Indonesia, which exhibits conflicting ideologies on its relationships to its own natural forests, as it is also the new "big boy" promoter of industrial biofuels (industrially produced agri-palm oil) which is causing great alarm, particularly as much of central Sumatra has been devastated by such plantation philosophies especially in Riau and Jambi provinces and now in various provinces of Kalimantan, Borneo where up ten percent of the remaining natural forests are intending to be slated for this insidious crop. (Ref 32). However hope may be on the horizon and will be shown that such a destructive philosophy to natural forests occurs in this instance in the form of the SEEBIF Initiative. **Namely that the value of standing forests is actually higher than the production of industrially produced agri-palm oil** (Ref 22). These references to this set of green economic arguments are extremely valuable and I request that all my peers present do take the time to investigate this particular area of evolving developments.

In saying this we can seek the reality of life on Kalimantan, Borneo. I could not continue without paraphrasing from the article in National Geographic of November 2008. (Ref 33)

"If you want the "red man and the little grey hairy man" (this means the Orang-utan and the one species of Grey Gibbon et al) of the forest to remain alive with his family, then pay us to look after the forest, so that we can live well, I can buy my little motorbike, a mobile phone, afford to get married and for me to be able to hunt our wild pigs....plenty of forests = plenty of pigs and all wildlife!"

What this local resident, Pak Yang of the Barito Dayaks in Central Province, Kalimantan in Borneo was requesting was the same as the Penan, Punan, Kenyah and Iban Dayaks; each group serving their own form of self reliance in relationship to their cultural needs, for themselves, their community and reinstating their human and development rights from the denigrating market economy whose sole purpose is to use their families and themselves, and all in their communities as economic hostages of the old guard of "Oligarch control" so embracing in these countries. The SEEBIF Initiative will provide an opportunity for the loosening of this nefarious grip. This new self reliance will be a resurrecting release for these wonderful people. A new, dynamic **SEEBIF Initiative** can gain for them a new realisation of both self respect and self determination which has so far eluded them, not only on the outer islands as mentioned of Sumatra and Borneo but also, and in particularly on West Papua...the new apocalyptic outer isle of biodiversity and ecological armageddon with thanks to the Centralised Oligarchs of Jakarta!!!

This whole structured but personal paper comes back to my original supposition. As I walk pass this little woodland today, I marvel at how our community stood together to save something which is special for us. If we value anything which we love then we make an effort to really care and nurture it. This little oak seedling I hold up before you is testament to this reality. "Our" real values for our forests, and I mean all of us including those who we will entrust to steward the tropical forests of our planet, must be based on a nurturing value and one which they know has been bestowed on them by all of us **who are to provide them with not just an income but self realisation as our partners for acting on our behalf from which we all benefit.**

Therefore the **SEEBIF Initiative is not just a monetary commodity value of carbon** as given a figure by those of the human family who have no interest in life apart from checking how much financial commission they gain into their bank accounts trading carbon...**but it is also a medium for our awareness of our deeper meaning of the values we all hold and may open us all to a new implication of being human.** And the Initiative will naturally provide the basis for an improved way of life for those communities who have suffered in ways we cannot in our deepest nightmares comprehend. This would never have happened if we had truly valued their natural and human-social capital of their forests properly and at an earlier time. For this I would like to apologise for all of us in the "carbon excessive polluting world". We now have to become for once truly responsible human beings and be prepared to readdress the concern with the SEEBIF Initiative (and the BRA-Word).

This is the whole crux of this paradigm programme. It has to be made to work; there is **no alternative to the deforestation process unless there is a paradigm shift in psychological philosophy towards the overall concepts, inaugurated by the Initiative as advanced in this paper.** For time is up for the majority of our forest biodiversity in the tropics. The "biodiversity, ecological and ecosystem service-armaggeddon express" must never reach the precipice from which there's no return; we owe it not only to our children to stop this apocalypse but to reverse it for their sake and for the sake of our ancestors who with an assimilation of the knowledge we now possess would not want this catastrophe to come to fruition!

What I have advocated in this paper is just a small shoot of an idea which has relevance and I hope that others will see the sense of both the pragmatism and sincerity from which these ideas were generated. I would like to believe what the great visionary Paul Erlich expressed twenty two years ago on issues on which this paper declares,

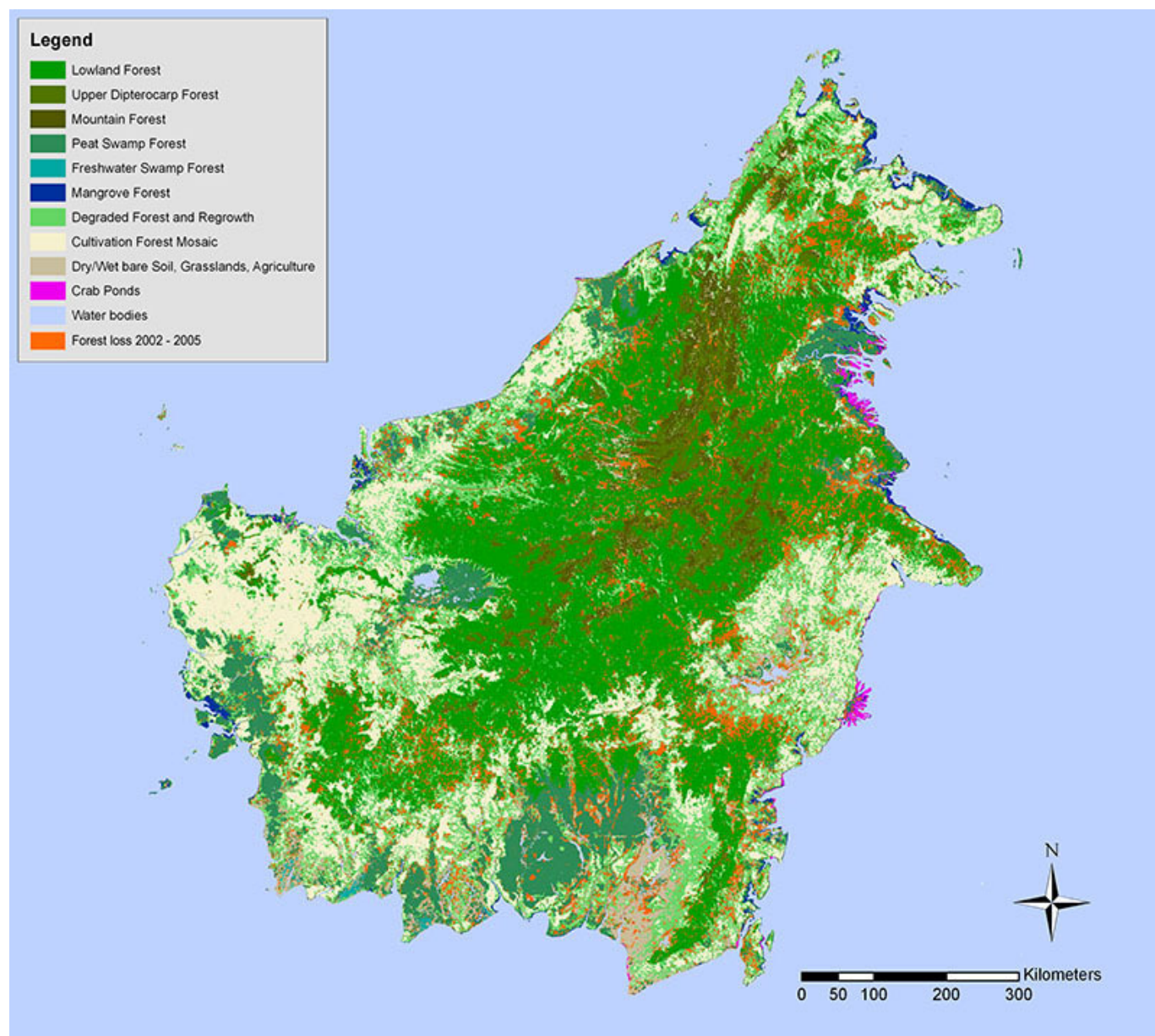
"We have to act with imagination and courage; imagination to think in all ways of the fundamental and practical meaning of ecology **and** to have the courage to act upon the implications."

Thank you.

Appendix 1

Reference: Borneo- REDD.....Realism for SEEBIF!

Borneo: "Treasure Island at Risk". **Recent land-cover condition of Borneo: 2007**



Reference: Langner A, Miettinen J and Siegert F. 2007. Land cover change 2002-2005 in Borneo and the role of fire derived from MODIS imagery. *Global Chang Biol* 13: 2329-40. [Land cover types were classified based on SPOT VEGETATION (2002) MODIS (2002) with 250m resolution]

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Appendix 2

Deforestation..... a synopsis

In reality this has only occurred because of the lack of vision of any realistic natural and social-human capital valuation of the forests themselves. Currently all oligarchs of centralised governance are liquidating their forests at a value for which they are.... "clueless".

The outsourcing of commodities from our tropical forests comes at a price. For in less than 80 months the last ancient, frontier, or primary forests anywhere in the tropical biomes will be extirpated...forever. It is a crime against the biosphere and against any emotional and rational thought.

Be it the timber from the illegal sunset "deforestation logging" for subsidised, agri-industrial soya, beef or palm oil...it matters little when we consider that unless we have a paradigm change in our philosophy to forests being of greater value alive than dead through the SEEBIF Initiative, then all will be for nothing.

The destructive conversion of carbon from material structure of forests to its atmospheric gaseous form accounts for the equivalent loss of NPPB of 1.5Gtc from a minimum of 75,000 kms² of outright deforestation to 150,000 kms² to include degradation, within tropical landscapes annually.

Appendix 3.

Towards a Radical Initiative.....SEEBIF synopsis

Three fundamental factors for this to become a pragmatic reality.

- **Avoidance of deforestation and degradation: unquestionable.**
- **Sequestration and storage: without which this Initiative is worthless.**
- **Restoration: is obvious; over the 850 million hectares of available land.**

The Initiative.... **SEEBIF**

Social..... the person, the family, the community...the human and social capital value which is the essence of the human interaction with their natural capital where they live and for their own choice achievable sustainable development needs.

Ecological..... it begins with the fungi/mycorrhizal associations... without which there are no trees nor forest; part of the natural capital.

Ecosystem..... "its raining"; all non but interactive parameters which together affect the ecological biodiversity and is part of the natural capital.

Biodiversity... the natural capital.

Insurance.....will ensure continuous financial input to allow acceptable forms of choice sustainable development models to guarantee the permanence of the SEEBIF Initiative

Finance.....an equitable carbon levy equivalent at US1.00 per person per week from G 20 nations.

Appendix 4.

Extended information. There will be made available a lengthy thesis on the SEEBIF Initiative which will be part of a course of higher educational study. A resume of this including the full factual and statistical analysis of details in its support will be made available for summary publication as a licensed document and will be made accessible to any person or organisation on request.

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