

A TRANSFORMATIONAL PATH BEYOND PARIS 2015: a realistic carbon budget and fair carbon pricing in a transformed world.

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The real question during and especially after Paris 2015 is the provocative question raised by Justin Gillis in his December 1 article: What would a truly ambitious plan to tackle climate change look like? Gillis states a little bit later that “few people have spent much time studying potential steps to “deep decarbonization” — certainly not at the level of detail needed for a concrete plan.”Gillis seems to put much faith in the Deep Decarbonization Pathways Project which, indeed, has technically or energetically speaking much going for it. However, the project has a focus on individual countries without an explicit whole worldview or long-term vision. Its 16 research teams could add to their study of energy pathways the Tierra Fee and Dividend social pathway proposed here.

The social and inclusive climate pathway that I developed as a Dutch-born international sustainability sociologist with training and experience in divinity and international affairs consists of an integrated vision of a transformed world that does not enrich the few, impoverish the many and imperil people, species and planet. This vision of a transformed world where the challenge of the looming climate change catastrophe is the point of departure or its organizing principle consists of eight integrated components

First, transformational system change has to adopt a *long timeframe*, of at least 25 years or probably more appropriately of a 50 year span that would also include the value of intergenerational justice. Gillis in explaining the “most compelling finding of the Deep Decarbonization Pathways Project” argues “governments could easily flub the energy transition by failing to plan far enough ahead” in their 10- and 15-year targets that can be met with incremental changes. They should at least figure out where they want to be in 2050 and then “work backward to plot the necessary technological path, while remaining open to new inventions”. The transformed world that is envisioned in the transformational socio-techno path of the Tierra Fee and Dividend system has at least a time frame of 50-75 years because the present monetary, financial, economic and commercial systems took centuries to develop and transforming them in a couple of decades is well-nigh impossible. Of course, if major climate catastrophes become dominant in those decades transformational system change can be shorter. Such catastrophes like global wars are major system changers in all their dimensions.

Second, the proposed transformation through the Tierra Fee and Dividend system is predicated on the transition away from the present *neo-liberal (dis)order* to a global governance system that does not enrich the few, impoverish the many and imperil people, species and planet. Such transformed international system with its appropriate global governance system is somewhat like the political revolution that Bernie Sanders is presently proposing in the USA and that has found acceptance particularly among the generation of US millennials.

Third, the Tierra Fee and Dividend system is based upon an accurate and particularly a fair *global carbon budget*. There is not to be a hanky-panky with negative emissions through biomass and carbon capture and storage as lucidly described by Geden in his December 1 Op-Ed piece. Negative emissions are the flip side of emissions. The idea is to develop technology that would remove carbon dioxide directly from the atmosphere. This would allow for significantly higher fossil fuel emissions over the next few decades which seems to be a dangerous thing to do. Notwithstanding the good will and optimism during these first few days of the UNFCCC conference it is not to be forgotten that the governments have pointedly declined to take up a recommendation from scientists of an equitable carbon budget which was well presented by Martin Kohr of the SouthCenter during the Cancun 2010 conference. It is also not to be forgotten that the voluntary pledges of countries are in most cases made as compromises between “the desire to be ambitious and the perceived cost and political difficulty of emissions cutbacks.”

Fourth, fairness in *carbon pricing* is crucial and as such cap-and-trade systems are generally not fair. They are also not fast and are not formidable given that they only deal with CO₂ or rather than CO₂e. Like in other areas of social, economic and ecological activities it is most important that policies are based on a set of integrated values as proposed in the Earth charter and further elaborated in the contextual sustainability framework of Earth and Peace Education International.

Fifth, the transformation of international monetary system and by implication of the Tierra Fee and Dividend system is based upon the transformation of the *global banking and financial systems* together with their economic and commercial systems. The transformation of the banking system can start with the pursuit 100% reserve banking and the expansion of public banking while the transformation in the present debt-based financial systems can evolve in a credit-based financial systems where governments are in charge of the spending into circulation of trillions of dollars or Tierras that are needed by nations and the UN for climate adaptation and modification.

Sixth, the transformation of the unjust, unsustainable and, therefore, unstable international monetary system into *just, sustainable and, therefore, stable international monetary system* is the main component of the Tierra Fee and Dividend system which is the heart of the Tierra Solution. It consists of the monetary standard of specific tonnage of CO₂e per person which leads to relatively fixed exchange rates and historical currencies pegged to the carbon standard or the new global currency of the Tierra. Main institutions that are needed are a world central bank and a modified balance of payments system that accounts for both financial and ecological (climate) credit and debts. Maurice Strong of Earth Summit fame considered in May 2010 basing the international monetary system on carbon “innovative” and Bill McKibben’s of 350.org fame wrote in May 2011: “The further into the global warming area we go, the more physics and politics narrows our possible paths of action. Here’s a very cogent and well-argued account of one of the remaining possibilities.”

Seventh, rather than focusing on the ambiguous term of sustainable development (SD) the international development community is to focus on *sustainable communities development(SCD)* where the real changes have to take place, including the introduction of supplemental local monetary systems. It is significant that political leaders on the sub-national level such as

governors and mayors are pushing for more aggressive cuts than national leaders at COP 21. They feel that their leaders are not moving fast enough and they have to do more.

Eight, the direction to be taking now is the direction set out by the *principles of the Earth charter* the initiative for which was taken by Dutch prime minister Ruud Lubbers, Maurice Strong, Mikhail Gorbachov after the Rio Earth Summit in 1992. Our way forward to the transformed world of carbon-based international monetary system its Tierra Fee and Dividend system is to remind ourselves of the “The Way Forward of the earlier quoted Earth Charter which states: “As never before in history, common destiny beckons us to seek a new beginning. Such renewal is the promise of the Earth Charter principles. To fulfill this promise, we must commit ourselves to adopt and promote the values and objectives the Charter..... “Let ours be a time remembered for the awakening of new reverence for life, the firm resolve to achieve sustainability, the quickening of the struggle for justice and peace, and the joyful celebration of life.”

In conclusion, what is needed of all of us is *boldness in reconceptualizing* the monetary, financial, economic and commercial systems and in giving the Tierra Fee and Dividend system due consideration and study as one of the very few integrated conceptualizations of a just, sustainable and stable world with its appropriate global governance system.

“Whatever you can do or dream you can, begin it. Boldness has genius, power and magic in it.”

Johann Goethe.

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