"From a Green Deal to a Green Economy"

1. THE EUROPEAN GREEN DEAL ANALYZED.

The European Green Deal is to be welcomed, but one may wonder whether it will deliver a truly green an just economy. Does it reflect such fundamental values and principles as:

justice, temperance, solidarity, care for creation?

Do the policy proposals in the EGD reflect those principles and values?

In this document we argue that we need to move from a Green Deal to a truly Green Economy.

In doing so we consider it necessary to develop *a narrative of a sustainable future* and to answer the question: what do we mean by sustainable future?

The EGD is an ambitious programme.

The European Green Deal, presented by the European Commission in December 2019, is an ambitious policy document, presenting a comprehensive and detailed plan for transition of the European economy and society to a greener and more sustainable future. The bar is set high, however the successful implementation of the Green Deal will depend on the EU member states to step up their game.

EU President Ursula von der Leyen's 'State of the Union Address' on 16 th September 2020, confirmed that the ambitions have not been reduced in face of the COVID 19 crisis. The Commission's decision to raise EU's climate reduction target from 40 to 55% is important, although not sufficient to be fully compatible with the Paris agreement. However, according to Climate Action Tracker, the EU stands out in comparison with other countries in terms of making climate action the driver of economic recovery.

The EU documents about the Green Deal speak of 'modernization of the EU economy', by developing 'deeply transformative policies' which would be 'greening the economy'. These policies would be aimed at transforming the current economic policies into a more 'circular economy' which –since it 'leaves no one behind'- is at the same time a 'just economy'. It would be 'resource efficient', make use of 'clean and affordable energy' and would be characterized by 'zero pollution' and be 'toxic free'. It would result in 'fair, healthy and environmentally friendly' agriculture and would be 'preserving and restoring ecosystems and biodiversity'. At the same time these transformative green policies would be part of the EU implementation of the Paris Climate Agreement as well as the UN Sustainable Development Goals-agenda.

This sure is a tall shopping list!

¹ Proposals for a Green New Deal have been developed earlier of course by the Green New Deal for *Europe*, an international campaign for a just and democratic transition to a sustainable Europe.

Founded in 2019 by the Democracy in Europe Movement, the Green New Deal for Europe aims to unite Europe's communities, unions, parties and activists behind a shared vision of ecological justice.

See the very detailed document entitled *A Blueprint for Europe's Just Transition*¹ available as a PDF from the website:https://report.gndforeurope.com/cms/wp-content/uploads/2020/01/Blueprint-for-Europes-Just-Transition-2nd-Ed.pdf

The documents provide a long list of instruments – more than 25- aimed at achieving these goals, including a European Climate Law setting CO-2 reduction targets for 2030/2050, a Circular Economy Action Plan (to be ready in March 2020!?), a Zero Pollution Action Plan (by 2021) It aims at 'mainstreaming sustainability in all EU – policies, 'integrating environmental risks into EU *prudential policies*', stimulating 'green budgeting and accounting' and –last but not least- integrating the SDG's into the European Semester. Of course all of this appears admirable.

But particularly right now – in the middle of a COVID 19 pandemic crisis - a growing number of organisations are issuing statements to the effect that –after this pandemic situation is under control- we cannot just return to 'business as usual', but need to go for a real TRANSITION, a TRANSFORMATION of economic, social, health and ecological policies. For example, the pandemic demonstrated that it is possible to reduce travel substantially and increase the use of electronic sharing. There is a real challenge in the post-corona recovery to avoid 'going back to normal' resulting in the continuing or even increasing pollution e.g. in the aviation industry.

We do need a new balance and more balanced policies. This re-emphasizes the need to constructively and critically assess the EGD. Does it contribute to such a transition or do we need even more radical change going beyond this package?

ACT ALLIANCE EU and the young 'climate strikers' have already argued that these policy-proposals, particularly the goals set in the Climate Law, are 'too little, too late' in view of the climate-emergency. Moreover they do not do justice to the principles of global equity and climate justice for all.

The EGD and a just transition, inequality and solidarity.

Central importance needs to be given to the intention in the EGD to leave no one behind. However, that may be rather difficult to implement. We need to draw attention to the social-economic impact of a green transformation, to people losing jobs in the course of the transformation and the question of how the transformation could be managed in such a way that it will be beneficial for everyone.

The EGD and the UN Sustainable Development Goals.

Whereas the Agenda 2030 and the SDG's are ambivalent concerning economic growth in the rich countries, the EGD **does not even seem to question the growth paradigm itself**, whilst believing —as it does- in the possibility of de-coupling economic growth from carbon emissions.

The EGD mentions that from 1970 to 2017 the annual extraction of raw materials tripled and continues to grow. The information suggests that combatting climate change is only possible by decreasing large scale consumption. However, since economic growth is still a paradigm of the EGD, consumerism is not questioned. The EDG does not face the fact that consumerism itself is a leading cause of the global ecological crisis. It still is far from challenging unsustainable consumerism which is still firmly rooted in the lifestyle and the mind of most people.

Instead the EU strives to support the production of 'sustainable products' in order to make them competitive and to provide more opportunities for green technologies. – to be exported elsewhere in the world.

This process requires conscious decisions by consumers as well as a high level of education. Because the transition required does need active and better informed citizens.

Ongoing education could also be a remedy for unbridled consumerism.

In order to create such a more responsible awareness concerning consumption the EU needs to build strong cooperation with NGOs in Europe. They could be major partners in the quest for an ecological and social transformation in Europe.

As the Quaker and 'critical economist' Kenneth Boulding once pointed out: 'Anyone who believes that exponential growth can continue eternally *in a finite world* is either a madman or an economist'. Nevertheless, as stated briefly above the EGD is still focused on economic growth. Moreover it does not address sufficiently other important aspects: e.g. addressing social issues, the need for justice for all, the need to overcome inequalities and to work for global justice. *In order to do so we need to move away from the undesirable emphasis on 'markets' and 'competition', which now enable the poorly paid to afford to buy what others (elsewhere in the world) have worked in poor conditions to make!*

A fundamental analysis of what 'justice' means and what 'just transition mechanisms' really are is seriously lacking in the EGD-document. Basically, these concerns are mentioned, but not sufficiently worked out. To really reduce economic disparities the ambition needs to go much higher. Similarly the EGD does not dig sufficiently deep into elaborating global aspects: *global inequality*. After all, climate justice/ecological justice and economic justice *are* a global issue!

Admittedly, the EGD has already come a long way in proposing progressive policies in areas such as the reduction of carbon emissions, the transition to renewable energy (SDG13), and environmentally sustainable production and consumption (SDG 12). However, all in all, we miss a stronger emphasis on the justice aspects of the SDG's, such as reducing inequality (SDG 11) and ending poverty (SDG 1). So we do need to urge the EU to *implement the entire SDG-Agenda*! And do so in a critical-constructive way as some of the SDG-goals have also been criticized as lacking or even contributing to an increased ecological footprint, rather than reducing it.²

This requires us also to consider seriously how to invest in a truly just and green way, bearing in mind the SDGs. For example, much emphasis is put in the document on specific measures to support a circular economy and sustainable production and consumption patterns. This is commendable, but unfortunately sustainability seems to be limited to *environmental concerns*, whereas sustainable production in our view should also include taking into consideration the working conditions in the entire supply chain. Therefore, the lack of measures to address human rights violations in supply chains (SDG 8), is a weakness in a document with a strong focus on sustainable production and consumption!

Here we also see demonstrated that there is a fundamental tension between the proponents of an 'open economy' and the advocates of a 'circular economy', the latter of which would 'close the circles' as much as possible at national (member states) and international levels (European Union).

Examples: no more soy from Latin America for intensive animal husbandry, no more palmoil, no more deforestation...

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² Nieuwerth, K., 'Ecojustice is Part of Just Peace: A Peace Church Perspective on the UN Sustainable Development Goals Agenda', lecture at Global Mennonite Peace Conference, Elspeet (NL) 2019 (under publication-later in 2020).

Last but not least when addressing justice: we need to be aware that the wealth of the (few) wealthiest people on the planet has increased during the pandemic, while their footprint is enormous. It is an example of the fact that the poor are in reality already left behind! In this respect we miss a reflection in the document on solidarity beyond the EU, which should not only consider the ecological foot-print, but also the social footprint of EU economy on other parts of our one world. Implicitly the EGD suggests that the Western countries are leading the struggle against climate change, but sadly this is based on a neocolonial view of European superiority Similarly the EGD does not problematize current practices of European companies/multinationals resulting in environmental degradation in the Global South (e.g. land grabbing, mining, export of waste).

The EGD and agriculture.

The EGD is too vague when it comes to agriculture and farming – maybe it is because we are waiting for the Farm to Fork strategy? If there is one sector of the economy which requires restructuring in the direction of a green economy than certainly it is agriculture. In many Western European member states agriculture has become an intensive industrial activity far removed from nature and completely unsustainable. Particularly animal husbandry in some parts of Europe has become a disgrace in terms of 'stewardship and care for creation. Its pollution levels(nitrogen, phosphate, pesticides) are actually contributing to the deterioration of the natural habitats of wild plant and animal species mentioned in our introduction above.

Arable agriculture in many parts of Europe has also intensified to an 'unnatural' degree and is accompanied by the use of many pesticides that are harmful to water quality, wild animals and human beings alike! Last but not least the EGD as far as this topic is concerned combines agriculture and forestry which means —since forests are CO-2-sinks- that the CO-2 emissions of agriculture —not to mention methane- are not reflecting the high actual emissions from the agricultural sector properly. From a sustainability point of view it would be better still if the agricultural sector to which the principle of circularity is applied would be embedded in an economy which is circular as a whole (see chapter 2).

The Dutch Government has adopted policies to move towards what it calls 'circular agriculture'. However with its enormous animal husbandry industry, exporting many animals annually and importing lots of feed/fodder, mainly soy from Latin America, how could that ever become circular? The number of animals kept would have to be reduced drastically and feed/fodder would have to be supplied by arable farmers to close the loop, instead of importing it. The now 'wasted' leaves of e.g. sugar beet and other root crops could possibly replace the import of soy.

And here again are serious questions in terms of the interrelationships between Europe and other parts of the world. Does European agricultural export hinder the development of agriculture in parts like Africa? In other words a Green Deal, a Green Economy must involve a transformation of agricultural and food production policies, both at a European and a global level (SDG 2).

Recently (October 2020) however a new agricultural policy package for the next seven years was agreed upon by the Ministers of Agriculture of the EU member states. The policies involved *do not bode well for the intended mainstreaming of the EGD!*

Industrialized agriculture will still receive most of the financial support of the Common Agricultural Policy

(CAP) of 360 billion Euros, constituting some 30% of the entire EU budget. Granted: some new ecologically based regulations and conditions have been integrated into the package, but these will only come into force in 2025 when half the plan-period is already over! This is quite rightly being criticized by the EU Parliament. After all the EGD included a target of achieving at least 25% organic/ecological agriculture in 2030 which when this policy package remains unchanged we will never be able to realize.

We would favour agricultural policies which subsidize for quality, rather than quantity.

This would have to involve a marked shift from current (industrialized) agricultural practices to farming practices preserving nature, landscape- and water quality. Agriculture which provides not just high quality food, but also so called 'green and blue services' to society and therefore should be rewarded for those services. In this context farmers should refrain from using excessive amounts of (artificial) fertilizers – which destroy soil vitality- and pesticides – which harm biodiversity.

Basic instruments for such a transformation are already present in the CAP: the so-called 'second pillar'(e.g. rural development policies) and the principle of cross-compliance in the first pillar. These should become the more dominant policies.

In our view a 'stewardship allowance' could replace many of the direct and indirect CAP production-related payments farmers receive. Farmers would receive such a stewardship allowance for every unit (hectare) of land and water managed in a sound ecological manner. This would be in line with what in a circular economy would be known as proper stock management (see chapter 2).

The EGD and renewable energy.

In the EGD the concept of a Just (Energy) Transition is established at the outset as a key-concept in order to get the citizens of Europe on board. Transition must, according to the document, "put people first, and pay attention to the regions, industries and workers who will face the greatest challenges". The EGD's focus on addressing energy poverty, as well as the Just Transition mechanisms aimed at carbon-producing regions, goes at least some way to address economic inequalities (SDG 11) -though the ambition is limited to *prevent the increase of inequalities* due to EGD measures, *not to end existing inequalities*!

The EU aims to solve this challenge by a Just Transition Mechanism and a Fund which will support coal-dependent regions in the transition away from coal, and support re-skilling and diversification of the economy. Of the Covid recovery fund agreed by the European Council in July, €10 billion is allocated to the Just Transition Fund, adding to the €7,5 agreed pre-Covid. The focus on sustainable and labour-intensive economic activities is also positive, and can thus contribute to fulfilling SDG 8 (Decent work and (sustainable?) economic growth). However, the Climate Action Network (CAN) criticises the proposed mechanism for not being effective enough, as only a minority of the member states supported through the mechanism actually have plans for phasing out coal production by 2030. In addition, several of them plan to start production of gas, another fossil energy source or even stick to nuclear energy, instead of transitioning directly to renewables. One of the flaws of the EGD in this respect is that the decision on the so-called 'energy-mix' a country wants to pursue is left to the member states.

The EGD does not specify what is meant by *clean energy*. In e. g. Hungary, people were informed by giant propaganda posters that nuclear power is a clean from of energy. Whether that is so is up for

serious debate. After all the raw materials a nuclear plant needs to produce electricity are definitely exhaustible and therefore non-renewable. Let alone the problems of the radioactive waste it produces which needs to be stored 'safely' for centuries. A rather problematic chain of production in the context of a quest for a sustainable future!

Yet another problem is that of the inherent tensions involved in transforming the dominant linear economy into a more green and circular one. In this instance tensions have been noticed between stimulating alternative energy and preserving nature/biodiversity. Take for example the fact that dams built to generate hydroelectricity also form barriers for fish to swim upstream to hatch their eggs. And more and more such dams are being built! Or the construction of windmills right in the migration flight path of birds migrating every winter from Siberia to Western Europe to hibernate, involving many birds which die from collision with these windmills. So careful study of the natural environment (included in an Environmental Impact Assessment) must be carried out before implementing such projects.

Yet another example of such a dilemma is that capture and storage of CO-2 (CCS) and wind- and solar energy are competing for subsidies. In the Netherlands for example large industrial companies in the harbour of Rotterdam are applying for subsidy from the government for CCS - but these come from the same fund as subsidies for wind - and solar energy! As the amount of subsidy applied for is rather substantial, this reduces opportunities to develop alternative sustainable energy sources.

But CCS is contested in environmental circles as prevention of emissions should be prioritized above storage. The latter may even entail the risk that emissions are just being continued instead of reduced..

The EGD and new lifestyles?

Albeit quite late, we human beings/citizens need to adopt quite a different life-style in order to reduce air, water and soil pollution, the consumption of natural resources, and our ecological footprint. The EGD is an ambitious initiative undertaken by EU Commission, but by itself policies are certainly not enough, to the extent that it mainly proposes measures and strategies to be taken by national governments. But as history and every-day life teaches us, one cannot change the lifestyle of the people by simply providing certain better political or moral principles. Education should play a vital role here, see our earlier remarks on the role churches could play in this respect.

The planet is in a very critical situation and perhaps some of the proposed measures are already dated or do not address the urgency of the problems sufficiently. What the churches —as spiritual centres in our society—may contribute, is to offer (through education, preaching, concrete examples of good practices) a different lifestyle which takes the *ontological* interdependence between human beings and all of creation seriously.

2. TOWARDS A GREEN AND JUST EUROPEAN ECONOMY.

The European Green Deal is a welcome step forward. But we are convinced that Europe does not just need a Green Deal but a truly *Green Economy*. A European economy which is both green and fair. Fair in the sense of fair trade as well as a just economy, which aims to reduce inequality within *and* between nations (northern and southern hemisphere).

However, the issue here is what is a green economy?

A carbon-free economy geared towards minimum pollution and reducing waste?

An economy aiming to decouple growth from ecological pressure?

An economy designed for selective growth: favouring green sectors over and above polluting ones? A more balanced zero-growth economy? A circular economy? Or an economy which incorporates dimensions of all of the above?

Does decoupling work?

It would suggest that some positive forms of economic activity —e.g. ecological agriculture, renewable energy production, health care and education- would selectively grow and more negative forms of economic activity would shrink or disappear altogether.

A recent publication by –no less- than the *European Environmental Bureau* (EEB) entitled '*Decoupling Debunked – Evidence and Arguments Against Green Growth as a Sole Strategy'* (2019)³ argues however that there is no empirical evidence that decoupling ecological pressure from growth actually works.

Absolute decoupling GDP from resource use would not be possible on a worldwide scale. According to this study human consumption of natural resources (fish, livestock, plants and trees, metals, minerals, fossil fuels) was 50 million metric tons per year in 2000, 70 billion tons in 2020 and if the trend continues will be 180 billion tons in 2050.

Since decoupling does not seem to work the risk we are facing is that natural resources will deplete and ecosystems will eventually collapse on a large scale.

Even if applying all best practices possible it would still be 95 billion metric tons in 2050.

That decoupling may not work is partly due to the factors such as problem-shifting, rebound effects, insufficient innovative technological change and limited potential of recycling. An example of problem-shifting: producing more electric cars shifts the problem from extracting fossil fuels to extracting copper, cobalt and rare metals such as lithium. As for the limited potential of recycling the report signals that the recycling rates are currently quite low and recovery processes still require significant amounts of energy. This urgently needs to be addressed by adequate policies, a subject we shall return to later.

Towards sufficiency oriented policies.

The advice in this report is to downscale economic production and consumption *in the wealthiest countries* and to complement efficiency-oriented policies with *sufficiency-oriented* policies, giving priority to the latter. Examples of such alternative sufficiency policies are movements such as transition towns, eco villages, slow cities, social and solidarity economics. Movements which are aware that 'more is not always better and enough can be plenty'. This choice of sufficiency - the authors argue- is not one of sacrifice resulting in unemployment, inequality and poverty, but rather the choice for a *fair* economy which remains within the carrying capacities of our biosphere. 'Living well within the planet's ecological limits' as the EU 7 th Environmental Action Programme puts it. This requires a different type of decoupling; that of prosperity and 'the good life' from economic growth. In order to do so we will need a new conceptual toolbox to assist policymakers in developing new ways in this 'crisis of imagination'.

³ Parrique, T. et alia, 'Decoupling Debunked: Evidence and Arguments Against Green Growth as a Sole Strategy', EEB, 2019

But how do we measure progress?

A major contribution towards these developing such imaginative policies is the work of Rutger Hoekstra entitled 'Replacing GDP by 2030 - Towards a Common Language for the Wellbeing and Sustainability Community'.4

He argues that the concept of GDP and the systems of accounting involved were originally only used by a few but at present by some 200 countries. He convincingly continues to argue that these are lacking in serious respects, particularly concerning taking concepts like wellbeing and sustainability into account. Although many alternative ways (some 40 of them!) to measure progress have been proposed in the past fifty years, the GDP approach still is the dominant one. This is highly unfortunate since important dimensions of what could be termed as genuine progress are not taken into account by the GDP approach: wellbeing, sustainability, equity and quality, the digitization of free services and –last but not leastglobalization (take for example tax evasion).

For a genuine measurement of progress the instrument applied should also include such positive aspects as good health and leisure, as well as negative ones such as inequality and ecological damage caused by the dominant economic system. Only in this way Hoekstra argues can we actually measure 'progress'. But as far as we are concerned that should be 'progress for the many instead of prosperity for the few'!

If such a more holistic approach is taken Hoekstra concludes that GDP may have risen since the 1950's, but what he terms the Genuine Progress Indicator (GPI) has clearly flattened since the 1970's! Similar findings were stressed by Martin Kopp in his Ph. D thesis entitled 'A Christian Questioning of Continued Economic Growth' 5

He raises the following pertinent questions:

1. Growth of what? 2. To what end? 3. For whom? 4, How? and 5. Until?, all of which need to be answered in order for us to come to conclusions.

Are we talking of life-enhancing growth or life-endangering growth?

Is this about living our lives in dignity or in prosperity?

It is encouraging to see that dissident economists are growing in number and (slowly) being heard. Take e.g. Tim Jacksons 'Prosperity without Growth', Manfred Max-Neef and Philip B. Smith's book Economics Unmasked, Kate Raworth's Doughnut Economics and the Dutch Rutger Bregman's *Utopia for Realists – and how we can get there.*⁶

However, since the GDP approach is currently so widespread it may even require a United Nations- led initiative to transform this dominant accounting system in order to arrive at a more fair and green instrument to measure genuine progress. Actually this could well be integrated in an improved SDG-Agenda 2.0, which we argued for earlier.

⁴ Hoekstra, R. 'Replacing GDP by 2030: Towards a Common Language for the Wellbeing and Sustainability Community', 2019.

⁵ Kopp, M., 'A Christian Questioning of Continued Economic Growth, 2018.

On the other hand this could also be a task to be taken up by the European Union in the course of the transition from the EGD to a truly green and fair European economy.

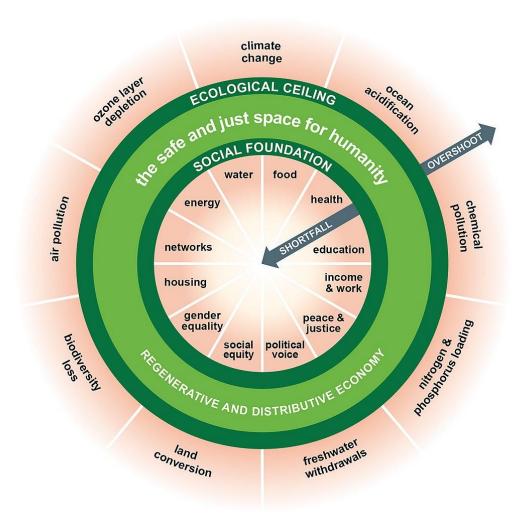
Financial growth in a virtual economy?

Yet another problem with the dominant economic model is that of 'virtual', 'illusionary' or 'fake' financial growth. Figures on a screen bearing no relationship with the 'real' economy. Money making money - without real productive activity involving labour and resources to back it up. The European Central Bank issuing more Euros to 'check inflation'. The fact the mere announcement of the discovery of a vaccine against Covid-19 caused the 'value' of shares in air companies to rise sharply!

A sustainable, fair and green economy.

We need to remind ourselves that the term sustainability was originally derived from forestry which aims to only use the annual incremental growth of wood (interest) whilst conserving the forest as such (stock). This therefore is an excellent indication of what a green and circular economy are all about.

In a green and fair economy the continuous pursuit of economic growth and the pursuit to increase efficiency is to be complemented, if not replaced, by the pursuit of *sufficiency*. This in turn would mean that a considerable downscaling of production and consumption is needed. A truly green and fair economy would be a circular economy which values stewardship over ownership and puts all stakeholders, rather than only the shareholders, at the centre of its policies. One which would stimulate caring and sharing. It would preferably tax the use of energy and raw materials/resources, rather than labour. An example: in Sweden VAT taxes on repair were halved in 2016. However, since taxation policies are the competence of the member states the EU could only advice all other member states to follow this example. Presently fiscal policies heavily tax labour and subsidize the production and consumption of non-renewable resources such as fossil fuels. We should be taxing virgin nonrenewables instead. Moreover we should not charge VAT on value-preserving activities like reuse, repair and remanufacture. Instead we could give them 'carbon credits' for the prevention of greenhouse gas emissions in relation to the significant reduction involved. After all a circular economy means high-labour, low-carbon and low resource and energyinput. All to this is well-illustrated by the schematic representation of a circular economy by Kate Raworth in her book 'Doughnut Economics' (2017).



And how do we build such a green and circular economy?

Although the EU appears to be moving in that direction there still is a fundamental tension between its declared aim of being an 'open economy' in a globalized world *and* the need to become a green and circular economy to reduce the increasing ecological pressure on the natural environment - the ecological footprint- particularly on what is called the 'global commons' (air/climate, forests/nature reserves, oceans/ rivers). Some would even call it the 'theft of the commons' (*Decoupling Debunked*).

A fundamental tension which calls for equally fundamental choices.

A circular economy differs fundamentally from the dominant 'linear economy'.⁷ It seeks to rebuild capital, whether natural, manufactured, human or social. It is a strategy to address resource scarcity, which may well be the most desirable dimension of a sustainable economy. Actually, circularity is the governing principle of nature. Have a closer look at the eminent example that highly complex and mature ecosystems like the tropical rainforest or the

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⁷ Stahel, W.R., 'the Circular Economy: A User's Guide', 2019

coral reefs provide. In maturing they produce less and less waste and use energy more and more efficiently. Everything is recycled. A truly circular system. ⁸

An economy in which the wastes of one become the raw materials of another economic activity – as nature teaches us, we will return to this later. The aim is to maintain the values and to manage stocks of assets. Caring for and sharing of stocks/resources. By contrast the dominant linear economy model is geared towards individual ownership and disposability of commodities. A circular economy aims to maintain their value and utility as high as possible for as long as possible. A system which balances economic, ecological and social needs based on a caring (stewardship) attitude. Small is beautiful: a circular economy is characterized by smaller loops which are could be more profitable and is more resource efficient, in other words: do not repair what is not broken, do not remanufacture something that can be repaired, do not recycle what can be remanufactured. A circular economy also promotes 'intelligent decentralization' (e. g. wind and solar energy, urban farming, microenterprises).

Wykman and Skanberg (2016) calculated that a nation-wide transition to a circular economy would reduce greenhouse gas (GHG) emissions by 66 % and increase the number of jobs at national level by more than 4 % ⁹

The role of extended producer liability.

A circular economy maintains existing resource investments instead of relying on new material and energy sources. This involves the promotion of the extension of service-life of products: through repair, reuse, remanufacture and upgrading of goods and components. Doubling the service-life of goods would halve both production and waste volumes already! However, producers currently employ strategies as 'premature product obsolescence' and technical incompatibility of new components to do the opposite. Moreover manufacturers often refuse access to e.g. the source codes of the software in for example smartphones which makes repairing the hardware difficult.

Producers should therefore be forced to accept an 'Extended Producer Liability' (EPL) and give a life-long warranty as well as repair goods free of charge. There should be a life-long repair guarantee on all objects sold. That would require regulation to ensure buy-back/takeback logistics and to re-manufacture and re-market returned objects/components. It would also require producers to provide access to information, tools and spare parts needed to repair objects in use. Legal instruments to oblige producers to do this are urgently needed. Although the EU adopted an EU Waste Directive in 2008 which prioritized reuse and servicelife extension this has not yet been transferred into national legislation by the EU member states.

Where objects are lost to into the natural environment preference should be given to

8 Nieuwerth, K., 'Ecojustice is Part of Just Peace: A Peace Church Perspective on the UN Sustainable Development Goals Agenda', lecture at Global Mennonite Peace Conference, Elspeet (NL) 2019 (under publication-later in 2020).

⁹ Wijkman, A. and Skanberg, K., The Circular Economy and Benefits for Society: Jobs and Climate Clear Winners in an Economy based on Renewable Energy and Resource Efficiency', Winterthur, 2016

biodegradable materials which nature's circularity can deal with. This is clearly not the case with plastics: these are new materials that do not exist in nature and nature cannot deal with them., hence the 'plastic soup' threatening our ocean life. But we humans have a moral obligation to keep control over materials and objects we make which nature cannot decompose.

A mature circular economy will need a 'stewardship valuing method' to monitor changes in the quality and quantity of stocks over time (could this be part of the Genuine Progress Indicator ? – see above).

The highest value preservation principle.

The highest value preservation option requires labour-intensive and non-destructive, creative collection, dismantling and sorting processes of so-called 'waste', which entail higher costs. It needs innovative analyses of remanufacturing options of 'discarded' goods.

An example: the ICE trains in Germany were remanufactured at a cost of 3 million each, rather than building a new one at 25 million apiece!

The redesign thus saved 16500 tons of steel and 1180 tons of copper per train which meant preventing 35.000 tons of Co-2 emissions and 500.000 tons of mining waste.

Another example would be the building industry. After all it consumes about a third of all material resources. If buildings were designed as modular systems of standardized components. It would be much easier to 'mine' the materials when they need to be pulled down and replaced. This is a good example of remanufacturing as the average life of a building is only 50 years.

According to the second-hand electronics platform *REBUY* research in 27 countries (including some EU member states, the United States and Canada) revealed that more that some 30 million 'old' smartphones are lying around idle in peoples' homes. In this report the Netherlands scores 0,77 smartphones per capita and Sweden even 1,31. This whilst these phones contain valuable resources, such as gold, silver, platinum and even some rare metals. because a smartphone contains some 70 of the 118 chemical elements of the periodic table often in very small quantities! So the above mentioned smartphones that are idle are estimated to be worth nearly 2 billion Euros.

Yet another example is that of cars that are written-off. Around 98 % of all the materials in the 200.000 annually written-off cars in the Netherlands are recycled. As far as the car industry is concerned member states of the EU are even now already obliged to recycle at least 90 % of the metals and components in car wrecks.

And yet: the Netherlands is exporting at least 80.000 old cars to 'lesser developed nations'!

Taking care of Europe's waste responsibly.

However, the export of mixed material wastes for recycling abroad is becoming more and more difficult, quite rightly so.

The West-African economic union ECOWAS in which 15 countries cooperate has closed its borders for the import of written-off cars from Europe.

China banned the import, be it plastics or metals in 2017. Many another Asian nation similarly banned the dismantling of large ships taken out of circulation by companies in the northern hemisphere.

The message is that Europe should take care of its own waste *in a responsible manner*. This increases the pressure on Governments/policymakers to develop appropriate methods to recover high value materials for reuse in manufacturing.

In the Netherlands the percentage of recycled material lies around the 12 % at the moment. The Dutch Government set targets for itself: 50% recycling in 2030 and 1005 in 2050. In order to have a really transformative effect on the dominant linear economy as a whole the current percentage of 12% should first rise to at least 20%.

This would constitute a crucial turning point according to transition theory for then the speed of the transformation into a circular economy would increase.

Even China introduced a Circular Economy Promotion Law in 2008 (!) which obliges the government to set new circular targets every year. So what about the EU?

The potential of urban mining.

Mining, refining and transporting resources causes some 50% of the CO-2 emissions. Extracting resources through mining costs money and creates environmental damages and waste. So 'Urban mining'- retrieving valuable resources and components from 'waste' as illustrated in the examples given above would be a major contribution to combatting climate change.

Prevention, reuse and recycling saves money and protects the environment But policymakers disregard these opportunities because they 'slow down GDP growth'. As for the latter we take a critical view of the GDP accounting system anyway!

Overexploitation of natural resources: theft of the commons.

The 2018 European Environment Agency Report (EEA,2018) noted that the increasing demand for food, feed, biomaterials and bioenergy resources would worsen the present overexploitation of natural resources

In a recent report entitled 'World Circularity Gap' by a research agency aptly called Circle Economy concludes that the circular percentage of the global economy has **decreased** from 9 to 8 per cent of the resources used in the global economy. Materials for building purposes account for some 40%, fossil fuels (coal, oil, gas) for at least 15%. Food production, transport and infrastructure, healthcare, communication technology and the clothing industry also require large quantities of raw material input. According to this report the worldwide resource use has multiplied four times since 1970. Climate change, loss of biodiversity and inequality are the consequences of the linear economy of 'take, make and throw away'. Research by Anders Wijkman, entitled "The Circular Economy and Benefits for Society', presented to the European Parliament in 2016, indicated that a shift to a circular economy would reduce CO-2 emissions by 66 % and increase employment by about 4 per cent.

So why does the EU not yet go for this transition, make this shift?

We are convinced that the quest for an integral approach to implement a 2.0 version of the SDG's will eventually lead to a shift to a circular economy. In order to do so changes in taxation, carbon pricing and innovative jumps in technology are all needed – and we argue that the EU should take the lead. That would really be a Green Deal!

After all, already in 2018 at the opening of a Circular Economy Hotspot Scotland in Glasgow, Scotland's First Minister, Nicola Sturgeon, apparently declared that she wants 'Scotland to be a real pioneer of circular economy'. But in shifting to a circular economy international cooperation will be crucial. Most products and commodities are part of the globalized economy. So we need coordination and we would like the EU to facilitate that transformation. There is a lot to be gained: at the World Economic Forum in Davos policymakers were recently informed - by the above mentioned research group Circle Economy- that transforming the dominant economy into a circular one would result in some 4,5 billion dollars profit! Moreover it would lead to increased resilience against potential trade wars and resource boycotts and thereby to increased resource and energy security.

On how to develop a circular economy the European Circular Economy Stakeholder Platform is disseminating knowledge in order 'to make the change to a circular economy happen faster for the benefit of all' (httpps://circulareconomy.europa.eu/platform/en). Further information can also be obtained from an association of Belgian companies for circular economy which has 220 member-companies and assists enterprises to transform their production processes in a circular direction (www.go4circle.be).

The transformation has begun. It is already happening.

But on yet too small a scale. Policymakers should upgrade it to EU- level! Let's do it!

For the sake of wellbeing and sustainability.

Towards A 2.0 version of the SDG 's and a green global economy?

A closer analysis of the SDG agenda shows that even though this is an admirable attempt at an integral approach of sustainable development at a global scale, even these goals are in some respects lacking.

Sustainability requires an alternative economy which is ethically grounded, ecologically bounded (or limited) and circular. What would be the characteristics of such an ecologically bounded and circular economy? As argued earlier on: have a closer look at the eminent example that highly complex and mature ecosystems like the tropical rainforest or the coral reefs provide. In maturing they produce less and less waste and use energy more and more efficiently. Everything is recycled. A truly circular system. – So far, our human (economic) systems do exactly the opposite! In Brazil we witness an eminent example at this moment: the Amazon forest, an essential CO² sink, is being cut down at a rate of one football pitch per minute!

We need to learn from such natural systems – as we indicated earlier.

However, the analysis demonstrates that resource demanding goals outweigh resource saving aspects of the SDGs nearly five to one! Moreover, the weight the SDG agenda gives to (economic) development and the lack of attention that it gives to resource dependency/ecological footprint makes it fall short of advancing development without further depleting the global natural resource base. The SDG agenda still does not further a model of development that makes all of us share resources worldwide in a manner that makes us succeed to live within the planet's natural limits.

Nevertheless, it is still a step in the right direction. It needs amending and refining. But above all it can only work if there is a transformation of the dominant economic model. We need a circular instead of a linear economy, one that is geared towards an 'economy of enough' and is guided by ecological and ethical principles. Thus, we need both, ecological and economic justice! As indicated earlier the SDGs are the first global attempt at an integrated approach, which we acknowledge. But in view of the above we need to have a closer look at them and make them more *truly* sustainable, just and inclusive.

The need for a comprehensive transformation strategy.

That this is necessary has been demonstrated by the pandemic Covid-19, which has shown quite well how vulnerable our world-wide human networks are. So we do not only need radical new thinking on a green and circular economy at European, but also at a global UN-level. We need a comprehensive anti-crisis strategy focusing on rapid adaptation of the current system, transforming it into a less vulnerable, more stable, inclusive, equitable and sustainable economy. As argued before: rather than embracing unqualified economic growth as the central aim, we should embrace a sustainable development strategy which is ecologically bounded, ethically grounded and therefore inclusive in terms of distribution of and access to resources. This demands a paradigm shift. It includes, but goes beyond concepts such as the internalization of externalities to incorporate the true costs and benefits. As argued above, it calls for a redefinition of the accounting systems to measure progress. It even calls for rethinking the appropriate blend of markets and governments, cooperation, competition, and regulation.

The challenge we face is to convert unparalleled crises (climate change, nuclear disaster, pandemic) into opportunities for global progress. The situation calls for more dynamic, creative, diverse and distributed forms of leadership backed by more inclusive, effective, and networked forms of multilateral coordination able to mobilize the full spectrum of global *stakeholders*.

We need to identify a broad range of strategies which can be applied and implemented in the present challenging context to foster awareness, release energy and generate social momentum for rapid change in different fields to support the emergence of a more sustainable, inclusive and sufficient economic system at a global level.

Strategies to create and move circular and green economies to full employment and the financial mechanisms available to do so in a fiscally responsible and sustainable manner.

The central place of the *right to employment* in strategies for human security.

Assessing the real social costs of prolonged unemployment.

Successful job creation strategies and programs.

Decentralized implementation of national programs to optimize community development. Financing public job creation programs.

In the same spirit we need to stimulate financial and economic experts to address the potential for special purpose instruments to e.g. focus on SDG 5 and 10 and examine the tools to expand them for broader financial inclusion. Focus on women and their role in the financial system in developing countries to promote inclusion. Literacy as a tool for the poor to participate in the financial system. For example: special purpose SDG Private Bonds could be introduced to specifically increase funding for particular SDGs.

Summarizing: we need to take a closer look at the SDG Agenda, create a 2.0 improved version and make it a toolbox to build green and just economies bringing real *progress* worldwide!

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