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**Short Elucidating Note 119: How can the dwarf true sustainability market paradigm-traditional market paradigm based sustainability framework be stated and use to show that patching external market failures shifts the responsibility for market failure from dwarf true sustainability market paradigm producers/dwarf true sustainability market paradigm consumers to governments placing governments in direct conflict of interest with their role as market overseers if things go from bad to worse?**

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## Abstract

There is a socio-environmental pollution production problem separating traditional market paradigms from true sustainability market paradigms. In other words, there is an external socio-environmental market failure between true sustainability market paradigms and traditional market paradigms, which needs to be fixed. It is the role of governments to address market failures when free markets run into them to make sure economies run efficiently as the government role is to act as market promoter, as a market monitor, as a market regulator, and as market policy enforcer under no conflict of interest since the responsibility of proper market functioning and of market failures falls on true sustainability market paradigm producers and true sustainability market paradigm consumers, and on traditional market paradigm producers and traditional market paradigm consumers, respectively. Hence if the government fully fixes the external socio-environmental market failure by fully shifting traditional market paradigms to true sustainability market paradigm the responsibility for market failure passes from traditional market paradigm producers and consumers to true sustainability market paradigm producers and consumers; and the government then would intervene only if there are internal true sustainability market paradigm failures. However, if the government chooses, knowingly or due to true

sustainability market paradigm shift knowledge gaps or due to simply by relying on the external socio-environmental market failure externality neutrality assumption to ignore a real external socio-environmental market failure, to implement dwarf true sustainability market paradigms to manage the consequences of the external socio-environmental market failure, then the responsibility for dwarf true sustainability market paradigm failure as things go from bad to worse falls now on governments, not on dwarf true sustainability market paradigm producers and dwarf true sustainability market paradigm consumers. And this makes the following questions relevant: How can the dwarf true sustainability market paradigm-traditional market paradigm based sustainability framework be stated and use to show that patching external market and failures shifts the responsibility for market failure from dwarf true sustainability market paradigm producers/dwarf true sustainability market paradigm consumers to governments placing governments in direct conflict of interest with their role as market overseers if things go from bad to worse? As markets here are under permanent government interventions, what are the implications of this situation for critical socio-environmental problem-solving advocacy?

## **Key concepts**

True sustainability market paradigm, dwarf true sustainability market paradigm, the traditional market paradigm, internal market failure, external market failures, free markets, markets under permanent government intervention, socio-environmental pollution production problem, remaining socio-environmental pollution production problem.

## **Introduction**

### **1) The socio-environmental pollution production problem separating free traditional market paradigms from free true sustainability paradigms**

It has been recently indicated (Muñoz 2026) that there is a socio-environmental pollution production problem (SEPOPP) separating traditional market paradigms (TM) from true sustainability market paradigms (TSM), which represent the traditional market paradigm sustainability problem (TMPSP) or socio-environmental sustainability problem, a situation indicated in Figure 1 below:

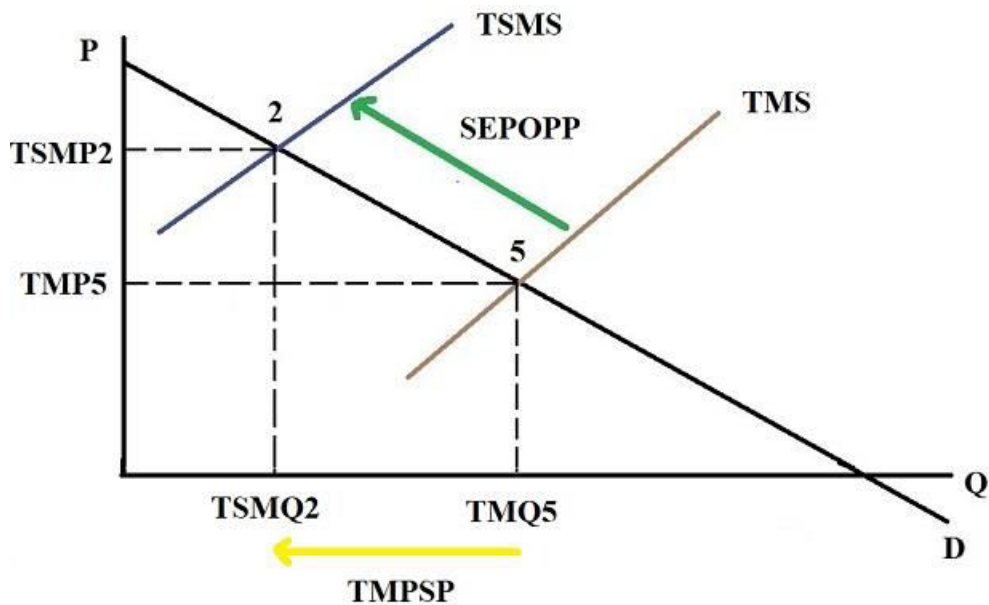


Figure 1 The true sustainability market paradigm(TSM)-traditional market paradigm(TM) based sustainability framework

Figure 1 above tells us that there is a socio-environmental pollution production problem (SEPOPP) separating traditional market paradigms (TM) from true sustainability market paradigms (TSM) as indicated by the continuous green arrow from TMS to TSMS. In other words, there is an external socio-environmental market failure between true sustainability market paradigms and traditional market paradigms, representing the traditional market paradigm sustainability problem (TMPSP) or socio-environmental sustainability problem which needs to be fixed.

#### a) The nature of true sustainability market paradigms

At point 2 in Figure 1 above we have a true sustainability market paradigm (TSM), where there is no internal market failure and there is no external market failure, a market cleared at price TSMP2 and producing and consuming TSMQ2. And this means this type of market does not have a socio-environmental pollution production problem (SEPOPP). Responsibility for internal market failure in true sustainability market paradigms (TSM) fall on true sustainability market paradigm producers and true sustainability market paradigm consumers, and in those cases government intervention without conflict of interest to correct socio-environmental market failures is expected. In other words, at point 2 there is internal and external market efficiency at the same time.

#### b) The nature of traditional market paradigms

At point 5 in Figure 1 above we have a traditional market paradigm (TM), where there is no internal market failure, but there is an external market failure, a market cleared at price TMP5 and producing and consuming TMQ5. And this means this type of market does have a socio-

environmental pollution production problem (SEPOPP). Responsibility for internal market failure in traditional market paradigms (TM) fall on traditional market paradigm producers and traditional market paradigm consumers, and in those cases government intervention without conflict of interest to correct market failures is expected.

### **c) The nature of the sustainability problem that needs to be fixed**

There is a socio-environmental pollution production problem (SEPOPP) separating traditional market paradigms (TM) from true sustainability market paradigms (TSM) as indicated by the arrow going from TMS to TSMS in Figure 1 above, a problem embedded in the distorted market price structure of traditional market paradigms, which makes it the traditional market paradigm sustainability problem (TMPSP) that need to be fixed so traditional market paradigms can be transformed into true sustainability market paradigms creating that way fully socio-environmentally responsible or fully efficient true sustainability markets.

### **d) The choices governments have when dealing with real socio-environmental market failures**

It is the duty of governments to ensure the existence of fully responsible or fully efficient markets; and hence, when there are real market failures they have the duty to intervene and correct those market failures by removing the abnormalities embedded in the traditional market paradigm to ensure that the economies they are overseeing are running fully efficiently or fully responsibly, and therefore, they are responsible for ensuring that markets are running free of abnormalities, and Figure 1 above describes a real external socio-environmental market failure associated with traditional market paradigms that the government needs to fix. However, if the government takes the position that real socio-environmental market failures do not exist or can be assumed away or can be fully ignored, then the government may feel there is no duty to intervene and while no intervention is taking place to fix market failures the consequences of the real socio-environmental market failures assumed away continue to pile up especially if the government promotes and support traditional market paradigm expansions under real external socio-environmental market failure. In other words, when facing real socio-environmental market failures, the government can fix them or ignore them. If they fixed them, they are implementing their duty properly, and if they ignore them, knowingly or due to true sustainability market paradigm shift knowledge gaps, they are creating the conditions to not implement their duties properly, and then the consequences of the real socio-environmental market failure being ignored as it is still active and the socio-environmental pollution production problem will continue to accumulate making the government a helper in creating socio-environmental pollution production problems, problems they have the duty to fix, situations described below in more detail. It is important to highlight here that both true sustainability market paradigms (TSM) at point 2 and traditional market paradigms (TM) at point 5 in Figure 1 above are both free markets, and hence the responsibility for any market failures in their markets falls on true sustainability market paradigm producers and consumers and on traditional market

paradigm producers and consumers, it does not fall on governments, and since the government here has nothing to do with socio-environmental market failures then when dealing with socio-environmental market failures it does not have any conflict of interest, and because of that in the face of advocacy for correcting socio-environmental market failures the government will tend to respect the right to protest legally: Advocacy here should keep in mind that if they legally pressure those without conflict of interest in free markets, in this case the government, they have a better pressure point on corporations and consumers while giving governments the reasons they need to respect the right to protest against irresponsible socio-environmental corporate and consumer behavior legally or in extreme cases giving them the reasons they need to make the right to protest against irresponsible socio-environmental corporate and consumer behavior legally even easier.

## 2) The expected government action under no socio-environmental market failure neutrality assumptions

If the government takes a real external socio-environmental market failure as real we should expect it to fix it, a situation highlighted in Figure 2 below:

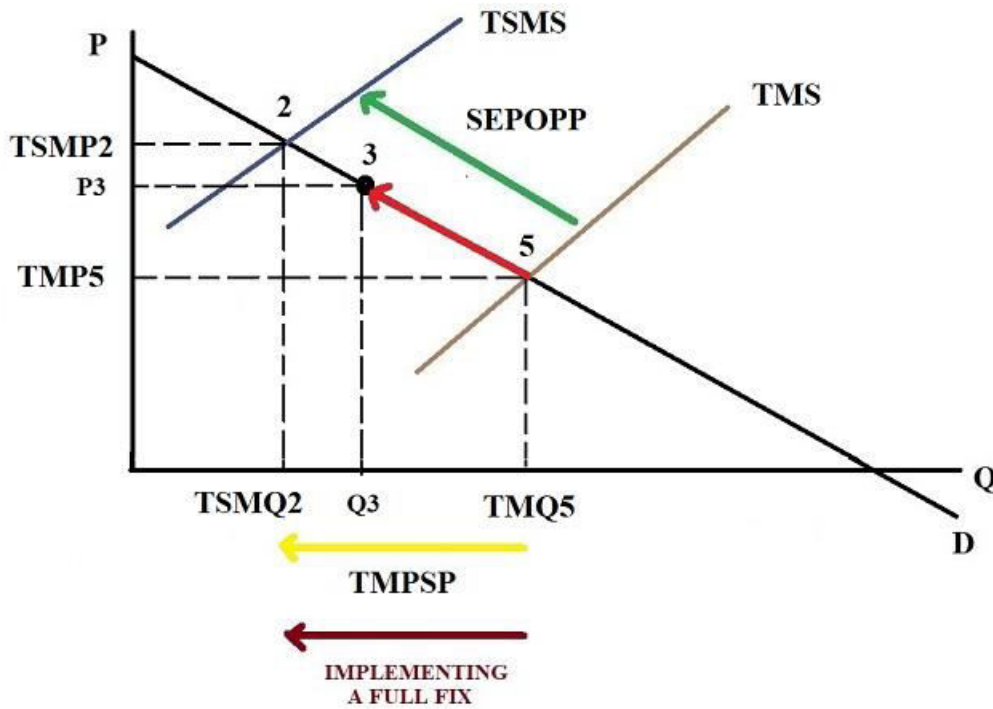


Figure 2 Expected government action under no socio-environmental market failure neutrality assumptions

Figure 2 above shows that when governments see real external socio-environmental market failures in traditional market paradigms (TM) they can fix them by closing the traditional market paradigm sustainability problem (TMPSP) or socio-environmental sustainability problem or the socio-environmental pollution production problem (SEPOPP)

associated with it through full critical socio-environmental problem cost internalization to shift the traditional market paradigm (TM) from point 5 to point 2, transforming it into a true sustainability market paradigm (TSM) as indicated by the black arrow going from TMQ5 to TSMQ2/implementing a full socio-environmental fix. And this is possible as here the government is acting under no external socio-environmental market failure neutrality assumptions. In summary, under no external socio-environmental market failure externality assumptions the government fulfils its duty to fix the socio-environmental market failure fully and promote fully responsible or fully efficient true sustainability market paradigm behavior. The government here would not implement partial solutions such as the one at point 3 in Figure 2 above as it needs to fully correct the real socio-environmental pollution production problem (SEPOPP) when under no socio-environmental pollution production externality assumptions.

### 3) The expected government action under socio-environmental market failure neutrality assumptions

If the government has a real external socio-environmental market failure to fix, but it assumes it away or ignores it this creates a situation where government actions affect the real socio-environmental pollution production problem it has assumed away and has a role in promoting socio-environmentally irresponsible traditional market paradigms expansions, a situation summarized in Figure 3 below:

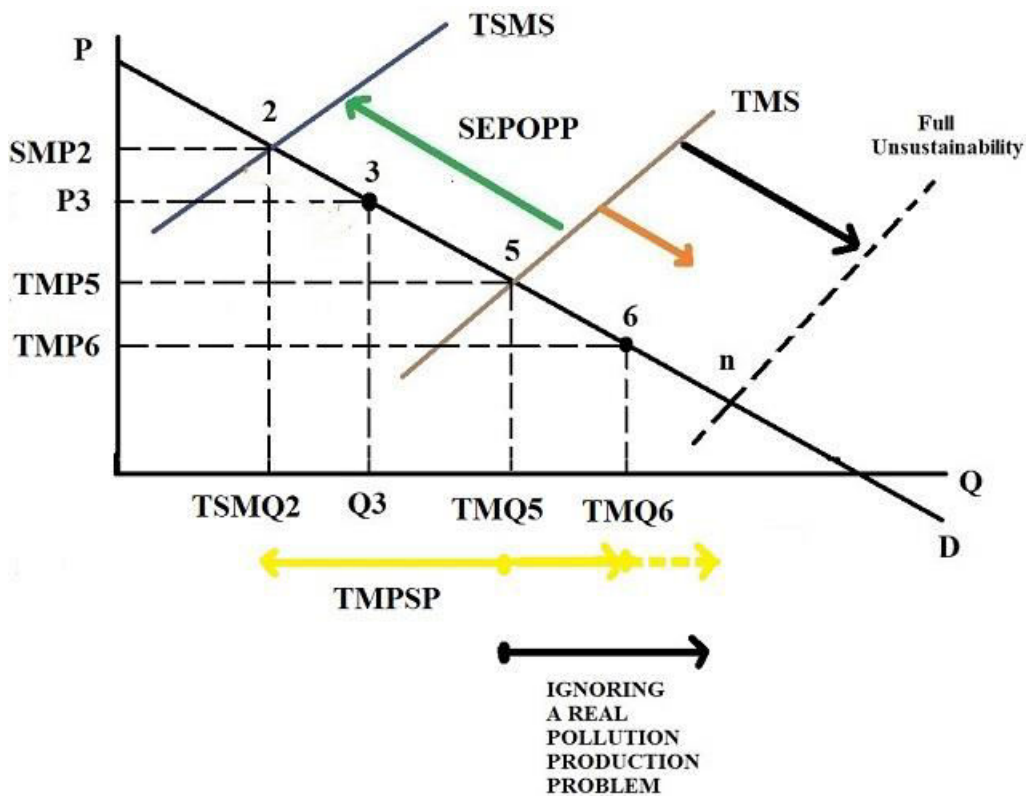


Figure 3 Expected government action under socio-environmental market failure neutrality assumptions

Figure 3 above indicates that when governments ignore or assumed away real external socio-environmental market failures in traditional market paradigms(TM) they will not fix them, instead they will promote and support traditional market paradigm expansions as indicated by the red arrow going from left to right from point 5 to point 6. Notice that this action by the government expands the socio-environmental pollution production problem (SEPOPP) by the distance from point 5 to point 6, which means it expands the traditional market paradigm sustainability problem (TMPSP) or socio-environmental sustainability problem by the distance from TMQ5 to TMQ6; and therefore, that government actions makes the external socio-environmental market failure worse, but all these real aspects are assumed away in the name of the external socio-environmental market failure externality neutrality assumption or position the government adheres to as shown by the black arrow going from left to right from point 5 or Q5, and notice that the government support for traditional market paradigm expansions beyond point 6 helps bring the traditional market paradigms closer to full unsustainability, but they cannot see this situation as the real external socio-environmental market failure is assumed away. In summary, under external socio-environmental market failures externality assumptions, knowingly or not, the government is supporting irresponsible socio-environmental pollution production behavior in traditional market paradigms while a real external socio-environmental market failure is getting worse. It is important to mention here that the socio-environmental externality production neutrality assumption leads to worlds operating under socio-environmentally distorted market prices that drive the socio-environmental pollution production problem. For example, the socio-environmental externality neutrality assumption embedded in Adam Smith's perfect market theory(Smith 1776) simplified reality extremely (Muñoz 2020) creating in the process an economic component dominant distorted market(Muñoz 2010) instead of advancing a model that reflects general market complexity and full socio-environmental inclusion in terms of true sustainability market thinking(Muñoz 2015) forcing us today to go backwards in terms of economic thinking(Muñoz 2012) to be able to correct the socio-environmental pollution production consequences of that socio-environmental externality neutrality assumption in the traditional market since 1776 that the Brundtland commission documented in 1987 (WCED 1987) in "Our Common Future". Sadly, we started corrections with the wrong foot, in 1987 instead of going the way of sustainability markets and thinking (Muñoz 2016) to address the socio-environmental sustainability problem the world went sustainable development thinking (Muñoz 2025).

#### **4) The government role in external socio-environmental market failures in the same plane**

It is possible to contrast expected government actions when they take real external socio-environmental market failures as real and when they choose to ignore real external socio-environmental market failures based on the external socio-environmental market failure production neutrality assumption as shown in Figure 4 below:

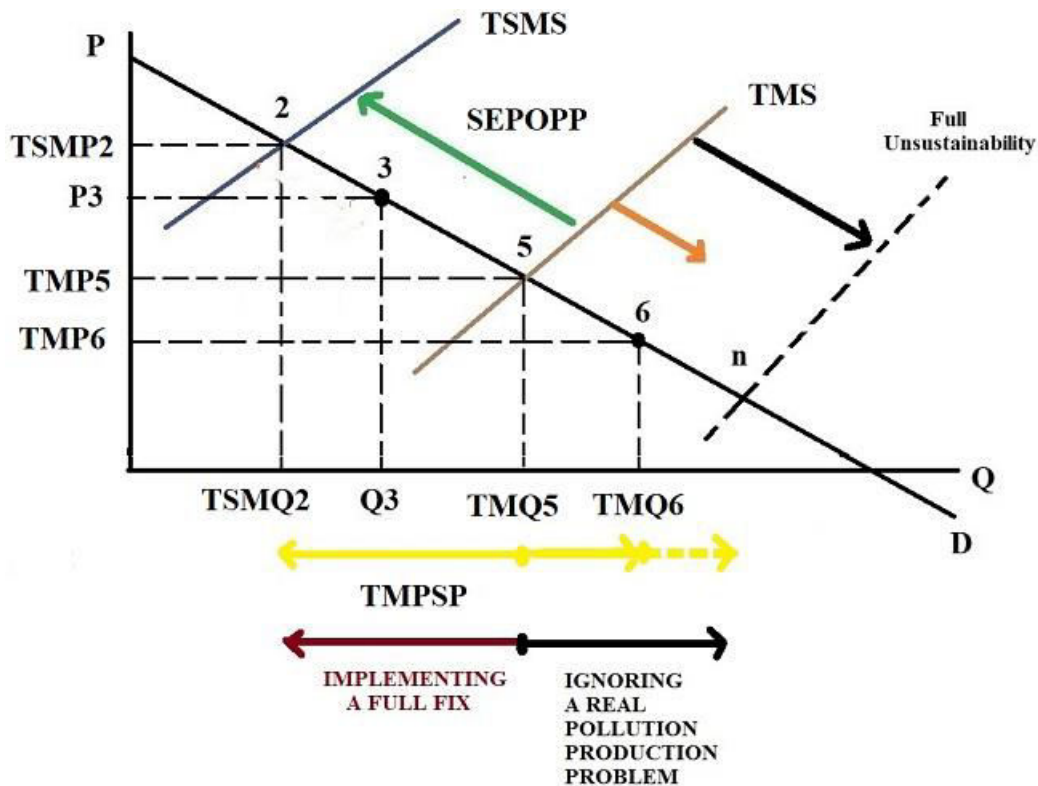
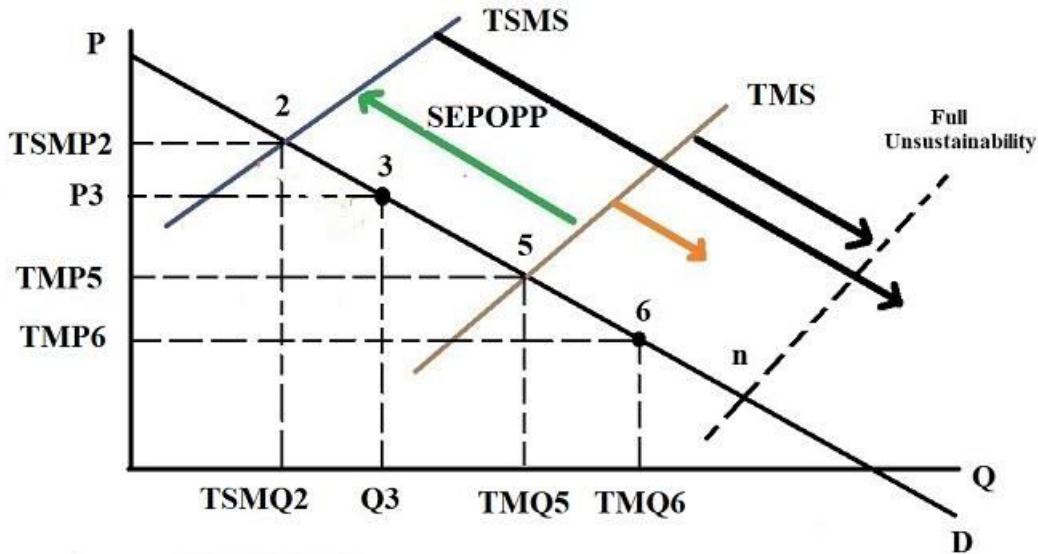


Figure 4 The actions government takes under no socio-environmental market failure neutrality assumptions and under socio-environmental market failure neutrality assumptions in the same plane.

Figure 4 above can be used to contrast expected government action when real external socio-environmental market failures are fully addressed or fully ignored: a) Under no external socio-environmental market failure neutrality assumptions the government should be expected to fully fix the external socio-environmental market failure and close the socio-environmental pollution production problem (SEPOPP), and when doing this closing the traditional market paradigm sustainability problem (TMPSP) or socio-environmental sustainability problem as the black arrow going from right to left shows: here the government is partner of responsible true sustainability market paradigm behavior; b) Under external socio-environmental market failure neutrality assumption the government should be expected to fully ignore a real external socio-environmental market failure and leave the socio-environmental pollution production problem (SEPOPP), and hence leave the traditional market paradigm sustainability problem (TMPSP) or socio-environmental sustainability problem open, and these socio-environmental pollution production problems and traditional market paradigm sustainability problem will expand as the government expands socio-environmentally irresponsible traditional market paradigm behavior as indicated both the black arrow going from left to right from TMQ5. And as traditional market paradigms expand to point 6 and beyond, they get closer to full unsustainability with the help of the government: here the government is partner of socio-environmentally irresponsible traditional market paradigm behavior.

**5) The nature of the limits to market growth schedules attached to each possible government action in the face of socio-environmental market failures and the link to the role of governments**

The limits to true sustainability market paradigm (TSM) expansions and of traditional market paradigm (TM) expansions and the role the government plays bringing markets towards full unsustainability or full socio-environmental sustainability can be appreciated when looking at the information in Figure 5 below:



**Figure 5** The working of true sustainability market paradigms(TSM) and traditional market paradigms(TM)

Figure 5 above indicates the following of limits to growth: a) True sustainability market paradigms(TSM) do not have socio-environmental pollution production limits to growth as indicated by the continuous black arrow going from left to right from TSMS and passing beyond the full unsustainability line at point “n”; b) Traditional market paradigms (TM) do have socio-environmental pollution production limits to growth as they tend towards collapse as they approach the full unsustainability point “n”; and c) True sustainability market paradigm (TSM) expansions do not expand the socio-environmental pollution production problem(SEPOPP) as expansions are optimal expansions as the socio-environmental pollution production problem (SEPOPP) here is internalized while traditional market paradigm (TM) expansions expand the socio-environmental pollution production problem (SEPOPP), whether we take a real socio-environmental pollution production problem as real or if we assumed it away. When governments fix external socio-environmental market failures fully, they transform traditional market paradigms into true sustainability market paradigms, and hence they are promoting socio-environmentally responsible market behavior, but when governments ignore real external socio-environmental market failures and focus on expanding traditional market paradigms, first it is promoting socio-environmentally irresponsible traditional market behavior as traditional market paradigm expansion takes place the real external socio-environmental market failure and its

socio-environmental pollution production problem goes from bad to worse, and second, if this promotion is long term, the government is helping traditional market paradigms to approach the point of full unsustainability or collapse “n” in Figure 5 above faster; and therefore, the government here becomes a tool of support for socio-environmentally irresponsible traditional market behavior which will lead the economies they are supposed to oversee and prevent from collapsing tending towards collapse or vertical paradigm evolution faster.

## **6) The need to understand the consequences of a partial fix to socio-environmental market failure problems**

Now imagining the government decides to accept that the external socio-environmental market failure and its consequences are real and therefore, they need to be addressed to ensure economies run fully efficiently, but instead of fully fixing the external socio-environmental market problem, it decides to implement a partial fix, a dwarf true sustainability market paradigm, an action that knowingly or not will affect a) the government role in that new dwarf true sustainability market paradigm; b) the government need to be outside conflict of interest if the partial fix or dwarf true sustainability market paradigm tends towards collapse after implementation; c) the impact of the partial decision or dwarf true sustainability market paradigm on the need to move to a world under no socio-environmental external market failures; d) the impact of implementing a partial solution or dwarf true sustainability market paradigm under permanent socio-environmental pollution production market failure as there is still a remaining socio-environmental pollution production problem attached to this partial solution or dwarf true sustainability market paradigm; and e) the impact on the efficiency of the partial solution or dwarf true sustainability market paradigm once set up . And the need to understand the impacts of partial fixes to real external socio-environmental market failures raises important questions such as how can the dwarf true sustainability market paradigm-traditional market paradigm based sustainability framework be stated and use to show that patching external socio-environmental market failures shifts the responsibility for market failure from dwarf true sustainability market paradigm producers/dwarf true sustainability market paradigm consumers to governments placing governments in direct conflict of interest with their role as market overseers if things go from bad to worse?. What are the main implications linked to partial solutions to critical and real external socio-environmental market failures?

## **Goals of this paper**

1) To state the dwarf true sustainability market paradigm (DTSM)-market traditional market paradigm (TM) based sustainability framework or DTSM-TM based sustainability framework; 2) To indicate the long term consequences of dwarf true sustainability market paradigm implementation in terms of worsening remaining socio-environmental pollution production problems while they are at work; 3) To highlight the impossibility of voluntary dwarf

true sustainability market paradigm expansions and contractions when markets are under permanent government intervention; 4) To point out the nature of the contraction limits to the government market contraction schedule for the dwarf true sustainability market paradigm; and 5) To contrast the working of true sustainability market paradigms, dwarf true sustainability market paradigms, and traditional market paradigms to show that dwarf true sustainability market paradigms work the opposite way and that they have different types of limits, expansion limits and contraction limits.

## **Methodology**

First, the terminology used in this paper is shared. Second, the dwarf true sustainability market paradigm (DTSM)-traditional market paradigm (TM) based sustainability framework or DTSM-TM based sustainability framework is highlighted. Third, the long term consequences of dwarf true sustainability market paradigm implementation in terms of worsening remaining socio-environmental pollution production problems while they are at work is pointed out. Fourth, the impossibility of voluntary dwarf true sustainability market paradigm expansions and contractions when markets are under permanent government intervention is stressed. Fifth, the nature of the contraction limits affecting dwarf true sustainability market paradigms is addressed; Sixth, the working of true sustainability market paradigms, dwarf true sustainability market paradigms, and traditional market paradigms is placed in the same plane in order to show that dwarf true sustainability market paradigms work the opposite way as the other paradigms and to indicate that there are limits to the government's market contraction policy under dwarf true sustainability market paradigms. And finally, some food for thoughts and relevant conclusions are given.

## **Terminology**

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TSM = True sustainability market paradigm

TSMS = True sustainability market paradigm supply

TSMQ = True sustainability market price

TSMQ = True sustainability market quantity

TM = Traditional market paradigm    TMS = Traditional market paradigm supply

TMP = Traditional market price

TMQ = Traditional market quantity

DTSM = Dwarf true sustainability market paradigm

DTSMS = Dwarf true sustainability market paradigm supply

DTSMPP = Dwarf true sustainability market paradigm price

DTSMQ = Dwarf true sustainability market paradigm quantity

SEPOPP = Socio-environmental pollution production problem

NSEPOPP = No socio-environmental pollution production problem

RSEPOPP = Remaining socio-environmental pollution production problem

TMPSP = Traditional market paradigm sustainability problem    SG = Sustainability gap

P = Paradigm/market price            Q = Paradigm/market quantity produced/consumed

D = Paradigm/market demand            MS = Paradigm/market supply

P<sub>i</sub> = Paradigm/market price “i”            Q<sub>i</sub> = Paradigm/market quantity “i”

YS = Yellow sustainability            TS = True sustainability

S = Sustainability            FUS = Full unsustainability

DTSM = Dwarf true sustainability market margin

SEDM = Socio-environmental dwarf margin

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## Relevant concepts

- 1) **True sustainability paradigm**, *a world without socio-environmental abnormalities embedded in it.*
- 2) **Traditional market paradigm**, *a world with full socio-environmental abnormalities embedded in it.*
- 3) **Socio-environmental pollution production problem**, *the situation created when traditional market paradigms externalize non-dominant component issues.*
- 4) **Sustainability**, *the world under full cost internalization.*

- 5) **Market expansion**, *an increase in market activity.*
- 6) **Market contraction**, *a decrease in market activity.*
- 7) **Government intervention**, *the action taken to address market failures.*
- 8) **Market failure**, *the situation created by internally and/or externally distorted market prices.*
- 9) **Internal market failure**, *the situation created by internally distorted market prices.*
- 10) **External market failure**, *the situation created by externally distorted market prices.*
- 11) **Optimal expansion**, *an increase in optimal economic activity, an efficient expansion*
- 12) **Non-optimal expansion**, *an increase in non-optimal economic activity, an inefficient expansion*
- 13) **Socio-environmental externality neutrality assumption**, *markets can expand for ever without generating socio-environmental externalities or socio-environmental pollution production problems, it allows you to ignore the presence and the need for action in the face of real socio-environmental pollution production problems by just assuming them away.*
- 14) **No socio-environmental externality neutrality assumption**, *markets cannot expand for ever as they generate socio-environmental externalities as they expand, which accumulate through time to a point that they can lead either to paradigm collapse if left alone or vertical paradigm shift if the governments plays its overseer role properly, it does not allow you to ignore the present and the need for action in the face of real socio-environmental pollution production problems as you cannot or you can no longer assume them away.*
- 15) **Distorted market prices**, *prices that deviate from optimal market prices due to endogenous and/or exogenous issues*
- 16) **Dwarf true sustainability paradigm**, *a partial solution to a traditional market paradigm's real external socio-environmental market failure*
- 17) **Remaining socio-environmental pollution production problem**, *the situation created when dwarf true sustainability market paradigms only internalize a portion of the socio-environmental pollution production problem, externalizing the rest.*
- 18) **External socio-environmental market failure neutrality assumption**, *the view that traditional market paradigms only have internal market failures; and hence, real external socio-environmental market failures and their consequences can be assumed away, and therefore, they can be left without fixing.*
- 19) **No external socio-environmental market failure neutrality assumption**, *the view that traditional market paradigms have external socio-environmental market failures; and hence,*

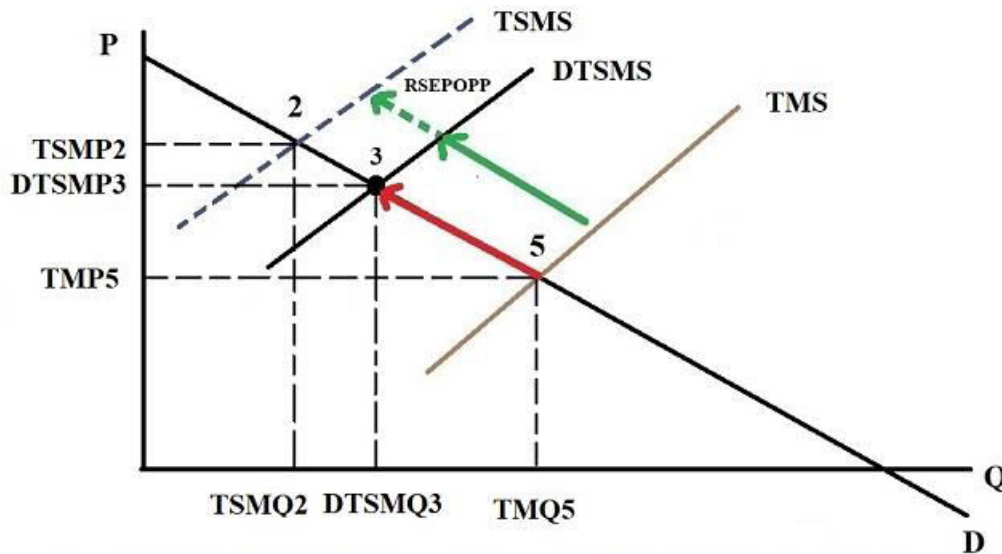
*real socio-environmental market failures and their consequences cannot be assumed away, and therefore, they must be fully fixed.*

**20) Partial socio-environmental externality neutrality assumption, the view that dwarf true sustainability paradigm contractions do not create remaining socio-environmental pollution production problems, and hence, they have no socio-environmental pollution contraction limits.**

**21) No partial socio-environmental externality neutrality assumption, the view that dwarf true sustainability market paradigms contractions do create remaining socio-environmental pollution production problems, and hence, they have socio-environmental pollution contraction limits.**

**The dwarf true sustainability market paradigm (DTSM)-traditional market paradigm (TM) based sustainability framework**

If we place the dwarf true sustainability market paradigm (DTSM) in between the true sustainability market paradigm (TSM) and the traditional market paradigm (TM) in Figure 1 above, we transform the true sustainability market paradigm (TSM)-traditional market paradigm (TM) based sustainability framework into the dwarf true sustainability market paradigm (DTSM)-traditional market paradigm(TM) based sustainability framework as shown in Figure 6 below:



**Figure 6 The dwarf true sustainability market paradigms(DTSM)-traditional market paradigm(TM) based sustainability framework**

Figure 6 above shows that at point 3 we have a dwarf true sustainability market paradigm (DTSM), set up by the government to partially fixed the real external socio-environmental market failure associated with the traditional market paradigm (TM), a market that requires permanent government intervention, which means it is a market under permanent socio-

environmental pollution production market failure. Notice that the dwarf true sustainability market paradigm (DTSM) is a move from point 5 to point 3 as some of the socio-environmental pollution production problem is accounted for, the distance from point 5 to point 3 as indicated by the continuous green arrow going from right to left from point 5 to point 3; and notice that the dwarf true sustainability market paradigm (DTSM) at point 3 has a remaining socio-environmental pollution production problem (RSEPOPP) as indicated by the broken green arrow that goes from right to left from point 3 to point 2. Hence dwarf true sustainability market paradigms (DTSM) are markets under permanent socio-environmental market failure and they are separated from true sustainability market paradigms (TSM) by the remaining socio-environmental pollution production problem (RSEPOPP).

Notice then that the dwarf true sustainability market paradigms (DTSM) at point 3 in Figure 6 above is not a free market created by the government, and hence the responsibility for any socio-environmental market failures falls on the government, not on dwarf true sustainability market paradigm producers and consumers so when dealing with socio-environmental market failures the government is in a deep conflict of interest because the dwarf true sustainability market paradigms they have set up are going from bad to worse and in the face of advocacy for correcting socio-environmental market failures the government will now tend to or it should be expected to tend to disrespecting or making more difficult to exercise the right to protest, even legally. So advocacy in dwarf true sustainability market paradigms or no free markets should not be of the same nature as advocacy in free markets as here the government is in a deep conflict of interest, and it should not be expected to monitor itself, to regulate itself or jail itself if market tend towards collapse as they are dealing with their own socio-environmental market failure: Advocacy here should keep in mind that if they legally pressure those without conflict of interest in no free markets, in this case dwarf true sustainability paradigm producers and consumers, they have a better pressure point on governments without giving governments the reasons they need to make the right to protest against irresponsible socio-environmental government action legally more difficult or in extreme cases give them the reasons they need to make the right to protest against irresponsible socio-environmental government action even illegal.

### **The long term consequences of dwarf true sustainability market (DTSM) implementation**

Once dwarf true sustainability market paradigms(DTSM) are set up and running such as the one at point 3 in Figure 7 below, we should expect that in the long term as they are at work the remaining socio-environmental pollution production problem(RSEPOPP) attached to them will get worse and worse, a situation detailed in Figure 7 below:

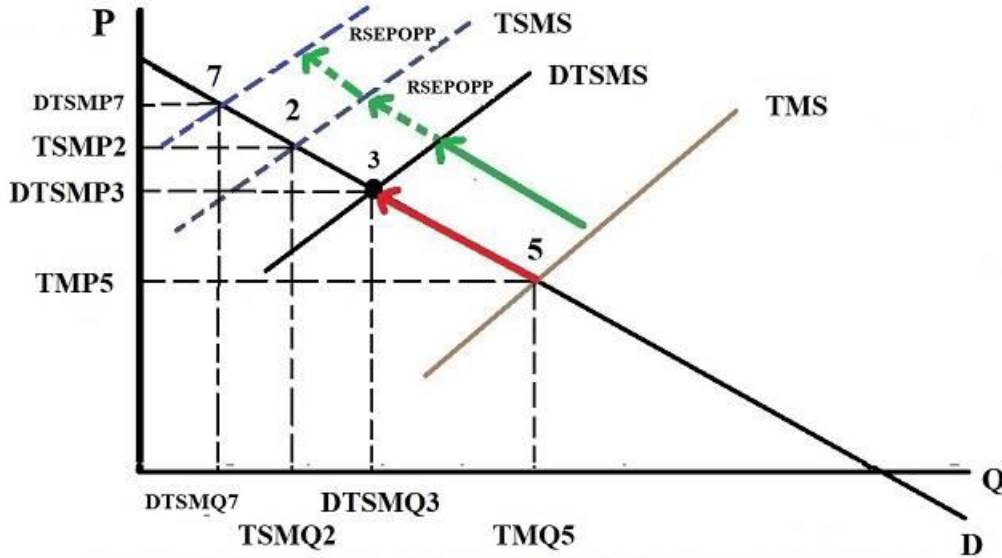


Figure 7 The long term consequences of dwarf true sustainability market paradigms once they are in place as sources of socio-environmental pollution production problem accumulation

Figure 7 above can be used to point out the following aspects about the dwarf true sustainability market paradigm set up by the government at point 3: a) Internalizing partially the socio-environmental pollution production problem (SEPOPP) of the traditional market paradigm, the distance from point 5 to point 3, shift the traditional market paradigm from point 5 to point 3, creating a remaining socio-environmental pollution production problem (RSEPOPP), the distance from point 3 to point 2; and b) In the long term, a dwarf true sustainability market paradigm permanently producing and consuming at point 3 will expand the remaining socio-environmental pollution production problem associated with them by the distance from point 2 to point 7; and c) those remaining socio-environmental pollution production problems will become the limits of dwarf true sustainability market paradigm contractions and the source of their collapse. In other words, in the long term the accumulation of remaining socio-environmental pollution production problems will lead to the collapse of the dwarf true sustainability market paradigm or open the door for most likely backward paradigm evolution. Dwarf true sustainability market paradigms in the form of dwarf paradigms a la carbon taxes reflecting just environmental responsibility were at work in Canada as a country and in British Columbia as a province and just before the next raise in both the federal and provincial carbon tax schedule they both were repealed in 2025, provincially(GBC 2015) and federally(CBC 2025) and the system went back to the polluter does not pay principle or back to environmental irresponsibility consistent with the expected backward evolution principle when avoiding tendencies towards market collapses or coming market collapses as the raising of dwarf true sustainability margins like the raising of dwarf environmental margins becomes unsustainable.



market contraction has to be, which again shows that if the dwarf true sustainability market paradigm (DTSM) tends from bad to worse and towards full unsustainability the responsibility for that socio-environmental market failures falls on governments who set them up.

### The nature of the limits to dwarf true sustainability market paradigms (DTSM)

The contraction limits affecting dwarf true sustainability market paradigms (DTSM) when governments are determined to implement a full dwarf true sustainability market paradigm contraction schedule can be appreciated based on the information in Figure 9 below:

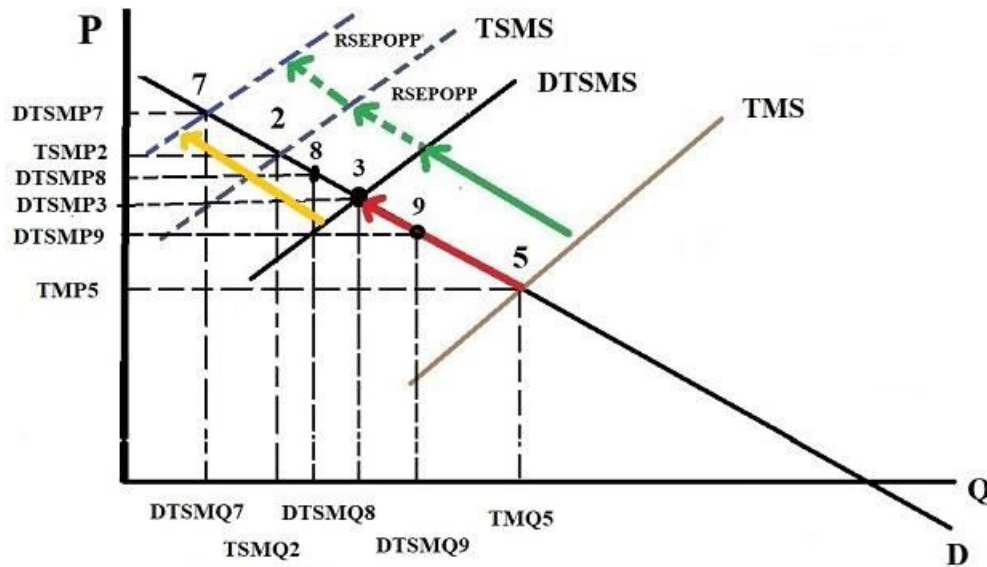


Figure 9 The nature of the limits to dwarf true sustainability market paradigm contractions

We can see in Figure 9 above that the government set the dwarf true sustainability market paradigm (DTSM) at point 3 by setting up a socio-environmental dwarf margin SEDM that dwarf true sustainability market paradigm producers must pass to consumers so that production and consumption stays at DTSMQ3. The yellow arrow from right to left from point 3 to point 7 indicates the long term contraction schedule the government has established to reduce the socio-environmental pollution production problem (SEPOPP) step by step beyond point 3 towards point 7, but the accumulation of the remaining socio-environmental pollution production problem SEPOPP created at each contraction point towards point 7 becomes so bad that point 7 becomes the contraction unsustainability point for the government, and as contractions approach that point 7 the dwarf true sustainability market paradigm will be tending towards collapse as the cost of socio-environmental pollution problem reduction due to the accumulation of the remaining socio-environmental pollution production problem would be even higher than at the initial true sustainability market paradigm (TSM) anchored point, point 2. In other words, government contraction schedules for dwarf true sustainability market paradigms have an

unsustainability limit driven by the accumulation of remaining socio-environmental pollution production problems(RSEPOPP) such as the one at point 7 in Figure 9 above.

### Contrasting the working of true sustainability market paradigms, dwarf true sustainability market paradigms, and traditional market paradigms

As dwarf true sustainability market paradigms (DTSM) are contraction based markets and true sustainability market paradigms (TSM) and traditional market paradigms (TM) are expansion based markets, they work in opposite directions and they have different limits in terms of contractions and expansions limits, as shown in Figure 10 below:

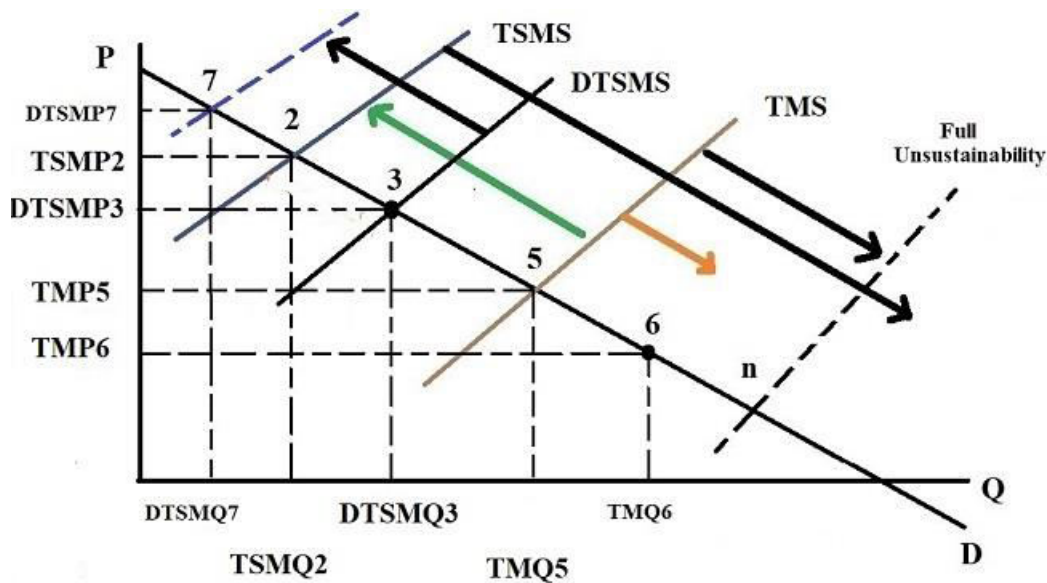


Figure 10 The working of true sustainability market paradigms(TSM), dwarf true sustainability market paradigms(DTSM), and traditional market paradigms(TM)

Figure 10 above can be used to highlight the following aspects: a) Traditional market paradigms (TM) have socio-environmental pollution production limits to growth as they tend to produce at the lowest traditional market price possible, the lowest economic cost possible, and the maximum socio-environmental cost externalization possible, they tend closer and closer to full un sustainability, a journey that goes from point 5 to just before point “n”; b) True sustainability market paradigms (TSM) do not have socio-environmental pollution production limits to growth as they tend to produce at the lowest true sustainability market paradigm price possible, the lowest true sustainability market paradigm cost possible, and full socio-economic-environmental cost accounting; and 3) Dwarf true sustainability market paradigms(DTSM) have a remaining socio-environmental pollution production problem (RSEPOPP), which as they work and as they contract more and more, moving from right to left reducing the socio-environmental pollution production problem by increasing incrementally the socio-environmental dwarf margin SEDM according to the contraction schedule planed by the government and hence, the market, as

long as the socio-environmental dwarf margin SEDM is the same stays permanently producing and consuming at the same point while its remaining socio-environmental pollution production problem accumulates from bad to worse. In other words, it can be said that both traditional market paradigms TM and dwarf true sustainability market paradigms DTSM have limits, one has limits to growth and the other has limits to contractions while true sustainability market paradigms TSM have no limits to expansions or contractions as both of them are optimal.

### **Food for thoughts**

1) Are dwarf true sustainability market paradigms partial solutions to critical socio-environmental sustainability problems? I think yes, what do you think?; 2) Do choosing to manage the consequences of the traditional market paradigm's external market failure means that the root causes of the traditional market paradigm's socio-environmental market failure are left untouched or assumed away? I think yes, what do you think?; 3) Are distorted traditional paradigm market prices the root-cause of the external socio-environmental market failure in traditional market paradigms? I think yes, what do you think?; 4) Should we expect a critical socio-environmental sustainability problem to go from bad to worse in the long-term under dwarf true sustainability market paradigm based government action? I think yes, what do you think?; 5) Does the responsibility for dwarf true sustainability paradigm socio-environmental market failures or collapse falls on the governments that set them up or on corporations and consumers? I think on governments, what do you think? 6) When governments set up dwarf true sustainability market paradigms, do they place themselves in a deep conflict of interest when those markets tend towards unsustainability? I think yes, what do you think? and 7) When governments oversee socio-environmental market failures, be it free true sustainability market paradigms or traditional market paradigms, are they in conflict of interest? I think no, what do you think?

### **Conclusions**

1) The dwarf true sustainability market paradigm-traditional market paradigm based sustainability framework was stated by placing the partial government solution to the real external socio-environmental market failure of the traditional market paradigm and it can be used to show the implications of partially addressing a real external socio-environmental market failure; 2) It was shown that setting up dwarf true sustainability market paradigms creates a remaining socio-environmental pollution production problem, which accumulates through time; 3) It was described how voluntary dwarf true sustainability market paradigm contractions and expansions are not possible as these markets are not free markets, they are under permanent government intervention; 4) It was highlighted that when dwarf true sustainability market paradigms tend towards full unsustainability, the responsibility for socio-environmental market

failure is on the government side, not corporations and consumers, and advocacy for fixing socio-environmental market failures should take that into account to avoid giving government under deep conflict of interest the reasons to make the right to protest against socio-environmentally irresponsible government action legally more difficult or even illegal; 5) It was pointed out that the limits to dwarf true sustainability market paradigms contractions to address the socio-environmental pollution production problem is made up by the accumulation of remaining socio-environmental pollution production problem linked to partial socio-environmental pollution problem internalization; and 6) It as shown that free markets like true sustainability market paradigms and traditional market paradigms tend to produce at the lowest cost possible, but only traditional market paradigm have socio-environmental pollution production limits to growth while it was indicated that dwarf true sustainability market paradigm produce at the price that reflect the current government socio-environmental dwarf margin and that they have socio-environmental contraction limits as there is a remaining socio-environmental pollution production problem accumulation point where dwarf true sustainability market paradigms will tend towards collapse or open the door for possible backward paradigm evolution. In general, it was shown that going from traditional market paradigms to dwarf true sustainability market paradigms to patch a socio-environmental pollution production problem shift the responsibility for market failures when things go from bad to worse to the governments that set them up, not to dwarf true sustainability market paradigm's producers/corporations and dwarf true sustainability market paradigm's consumers/shoppers.

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