

Global Warming: Recession Agriculture Forest Atmosphere (RAA)

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Abstract

The purpose of this research is to explain, one of the reasons behind environmental damage when economic activities are less, even related with economic situation: This research discusses role of economic sector in environmental damage for recession. The work discusses trend situation of Air pollution. Result: Wrong use of Agriculture land should be responsible for it. A tax on middle income situation suggested taking care of both tail of economic situation to have environment friendly circle.

Keywords: Economic growth; Agriculture; Environment; Forest economy

Introduction

Recession countries stress upon forest depletion so that it can export more agriculture goods, however it could be made other way so that many negativity can be avoided. Along with Automatic adjustment of Classical Economy process equivalent Increase of Agriculture land would be must to sustain stable price and Growth, Excavation or search of new sources of Income is must, one of the most Pre Historic way or method is to substitute Forest land By Agriculture land, or it has become a Human behaviour norm, which could be in effective and Harmful too under Economic recession: Or, this research presents "Total Misleading Substitutability between Forest land and Agriculture land(MSFA)" [1].

Economic recession and environment

This research may be adding one measure for forest depletion (DEF). This research put forth phenomenon of feasibility of Environment problem: Air pollution because of lack of Economic Activities. Economic recession could be reason behind Environmental damage (due to Methane emission): It adds the optimal value of Environment Supportive Income (ESI) [2]. This research discusses, how, "GDP Income (Per capita GDP)<ESI_1", could also lead to environmental problem. This research is not getting elaborate the case GDP Income (Per capita GDP)>ESI_2, due to Industrial and along agriculture waste. It adds one measure, RMEA, a relative measure on environmental cause due to Agriculture at end [3].

USE of Money to GDP as Indicator of Economic Recession: The increasing Money to GDP ratio shows the increasing storing of Money, cause demand constraint under imperfect market or economic recession situation in an economy because credit once created would not be able to get back because of all produced goods would not been sold (other than equilibrium). So, inverse of Money to GDP could be used in place of per capita income.

Implication: The implication of air pollution due to methane gas emission, because, the methane emission may affect, highly negatively Ozone layer, by breaking/reaction with Ozone, through breaking, AS WELL increasing global temperature, at atmosphere, due to atmospheric methane and may result various lethal deceases, including Cancer due to UV rays.

Materials and Methods

Metane emission and agriculture

As the income of agriculture goes down under recession, as demand from industry also goes down, it can't meet the expenditure to fill the 'hollow out', un used agriculture land, so the methane gas comes out of this. The income from agriculture is not sufficient to re fill the ground (NFL), to stop methane emission, because of lack of agriculture income of farmers.

Though the forest could have been made change for agriculture cultivation, but remain discontinue of agriculture cultivation due to slow down of demand of an economy. On the other hand the conversion of agriculture land should not be easy as with economic growth, the demand of agriculture may go up could raise the inflation and halt industrial growth [4].

Theoretical background

There are many works available on the issue of Industrial growth and Environmental problem, which could depict as right tail of ESI.

Methodology

Theory

The theory lies to the fact that with the depression, the demand for agriculture also comes down as a result the forest depletion goes up simultaneously and as a result of lack of care, methane emission also goes up with Garbage. While in supply constraint situation the industry could be responsible for environmental damage, while on demand constraint situation the un used or empty land of agriculture sector, should be responsible as due to decline of income, agriculture income also goes down and cannot meet the depreciation of land (Diagram 1).



Importance of 'ESI'

This work proposes the possibility of existence of ESI, for production process. The distribution of ESI should have two tailed: It should have upper and lower safety limit. The economic concern is how such distribution could be enlarged with economic variables, like tax/subsidy to agriculture, and industry [5].

Non linear environmental tax structure

This research produces "Two Tail Environmental Policy (TTEP)": a tax policy on middle range of income path, as it starts/adds, with the field or area of research "Environment Problem under Recession (EUR)": It adds Non Filling Land (NFL) as the cause of Environment problem: Air pollution. Such environment tax policy should provide incentive to both Industrial, as well as Agriculture sector to move forward.

Environment problem when there is stand still situation or no work, lack of industrial waste. This research explains the Positive trend relation between Money to GDP ratio (proxy for recessing situation under imperfect market, per capita GDP also can be used) and Methane emission (proxy for air pollution). This research explains the, Positive relationship between Economic recession and Environment problem: Environment problem with economic situation where Economic activities are less.

Objective

This research adds a "Two Tail Environmental Policy (TTEP)" to have better situation for agriculture and Industrial based country: A middle sector environmental tax would have tendency to have at lest circular agriculture sector (in most of cases agriculture based on rain fall could be seen like this) and growing industrial sector. This research points the boundary situation, beyond which Expenditure on Environment protection should be must to continue Economic Programs, otherwise, health problems may develop, which may effects labour, agriculture production for the next generation or period.

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Two tail distribution, macro models and ttep

While a policy may, like environmental tax when, ESI_2>Per capita GDP>ESI_1, which should be must when Environment degradation occur at right and left tail of distribution of gross income, and spent the collected tax when Per capita GDP out of bound may impact or incorporated upon many Macroeconomic Models/Policies: In most of the macro models, having right tail environment degradation environmental tax is levied with increasing income, but when environmental degradation is distributed in two tail: as a result an agriculture base countries would circulate between recession and growth, while industrial base country could have tendency towards upward situation towards higher growth applying 'TTEP' [6].

Results

Study and result

System analysis (trend): Figure 1 reflects the positive relationship in trend between Money to GDP ratio and Methane emission in %. The higher trend of Money to GDP reflects increasing depression situation in World under imperfect market, and increasing Methane emission reflects Environment problem. The Figure 2 reflects the negative relationship between agriculture land % Forest depletion %. Forest depletion grown up could be to make agricultural land, but land as agriculture purpose should have gone down which lead to MSFA.





Ozone' hole and global temparature: Figure 3 describes ozone (Data from NASA) hole of Atmosphere vs Money to GDP holding. It can be seen both series are upward trend, signals, with recession of World, the Ozone hole also has increased. One of the reasons could be behind rise of average temperature: Figure 4 shows the trend of Money to GDP and Global Average temperature over year. It can be seen as Money to GDP grows, the average temperature had gone up. Such temperature ups should have negative impact upon eco system.





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Rainfall, water resources and agriculture production: The impact of enhance of Global temperature could be extended to rainfall and water resources. As the Normal temperature level increases, rainfall suffers and water resources get reduced, Agriculture production suffers.

Discussion

Policy

As a policy this work suggest to tax in environmental friendly situation, to spent it, while when economy is out of bound. While on Increasing Economic Growth Environmental policies should be more Industry; towards Decreasing Economic Growth, biased Environmental policies should be more biased towards Agriculture sector. So, there should be minimum support expenditure for agriculture sector for environmental damage while on recession. 'ESI' could be computed empirically for different countries. Another policy is family farming or farming together by community base, which lacks in countries suffer by recession, it helps to keep back up or risk averted money. Risk protection of farmers could be needed, and planned agriculture production, collection and distribution would be needed. At end, more concentration should be placed to Plantation at Urban areas. Another Policy could be effective is the use of subsidy, as base of Credit Risk for Agriculture sector, so that Plantation, Forest tourism, Production of exportable forest product, or Forest related Business, even for education Forest studies and management should be encouraged even under recession.

Measure

A simple measure could be used as basis for Relative measure on 'Relative Measure Environment Cause due to Agriculture Sector' (RMEA), relative to Country which has Exported Highest amount of that Agriculture product per unit of land in that year: Any kind of environment change should have impact upon temperature of the region and data upon it easily available everywhere. So this measure uses change in Temperature (Δ T), similar time frame, say Jan, 2000, Jan 2001 and change in agriculture production per unit of area (Δ A). Under Null, Normally Δ T should be zero. RMEA=[exp (K1)/(1+exp(K1))]-[exp (K2)/(1+exp (K2))]. More Positive RMEA, more Environmental problem due to recession in agriculture sector. Ki: Corr

 $(\Delta T, \Delta A)$ Correlation Coefficient=0 if Corr $(\Delta T, \Delta A)>0$, i=1,2. K1: Correlation Coefficient of Highest amount of Export of that Agriculture product per unit of land in that year of that Highest export country. K2: Correlation Coefficient of the country under scrutiny [7].

Depletionary economic measure of forest (Def)

On basis of Relative Price of Agriculture commodity (I), relative to Industrial price, and area of Agriculture sector (A): This measure DEF could be such that forest depletion should be used when, 1>>DEF \geq 0, DEF=Average on Time [(Δ A/A)/(Δ I/I)], when (Δ A/A), (Δ I/I) \geq 0. The logic behind supporting forest depletion, the forest depletion for agriculture work would be needed when there would be more forest in that case agriculture sector cannot grow as like industry so the relative price of agriculture goods should be higher, similarly when area for agriculture works is not growing by any reason: DEF \Rightarrow 0 whenever (Δ I/I) $\Rightarrow \infty$ and, or, (Δ A/A) \Rightarrow 0, when without forest depletion, Agriculture commodity relative Price would be tends to infinite.

Conclusion and Policy

In Recession, Forest should not be substitutable for Agriculture land, Forest Cum Agriculture Land Farming (Agriculture within Forest) should be applied: this method should be more Labour Intensive as the movement of agriculture machineries within forest should not be easy, keeping trees so more employment could be made in agriculture sector which is required for ECONOMIC RECESSION countries. In addition, in absence of Agriculture work, land filling could be made automatically in presence of forest. As it could be irreversible process, so before any Forest depletion, measures should be applied upon forecast of economic variables, very strictly.

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