SUSTAINABLE DEVELOPMENT AND YOUNG GRETA SPEECH AT ONU ON SEPTEMBER 2019

Desenvolvimento sustentável e o discurso da jovem greta na onu em setembro de 2019
Desarrollo sostenible y o discurso da greta en onu en septiembre de 2019

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Abstract
This paper discusses the recent interventions about climate change and the sustainable development of a young lady at ONU. The hysteric intervention and the following manifestations all over the world seem something different from an ONU congress like RIO 92 and Rio 92+20, with wise discussions and a concert of many actors, it seems more to launch a new crusade. The paper works the idea of a rationale of a problem solved using the DPSIR tool on the Brazil deforestation problem. The result of the present exercise shows many forces and conflicts between economic and social development that could stop any negotiation to save the forest. Alternative and possible plans are very different from the "save the planet" yell launched at ONU. It is possible to develop responses in Brazil in the context of a country with many problems and own culture of using natural resources as the western countries did for many years. So this paper claims to beware of such an emotional proposal without an expert analysis and public administration proposal that can be done with prepared professionals.

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Resumo
Este Trabalho discute as recentes intervenções sobre mudanças climáticas e o desenvolvimento sustentável de uma jovem na ONU. A intervenção histérica e as seguintes manifestações em todo o mundo parecem algo diferente de um congresso da ONU como foi no RIO 92 e o Rio 92 + 20, com discussões sábias e um concerto de muitos atores, parece mais lançar uma nova cruzada. O artigo trabalha com à ideia de uma lógica de um problema resolvido usando a ferramenta DPSIR no problema de desmatamento no Brasil. O resultado do exercício mostra muitas forças e conflitos entre o desenvolvimento econômico e social que podem interromper qualquer negociação para salvar a floresta. Planos alternativos e possíveis são muito diferentes do grito de "salvar o planeta" lançado na ONU. É possível desenvolver respostas no Brasil no contexto de um país com muitos problemas e cultura própria de usar os recursos naturais, como os países ocidentais fizeram por muitos anos. Portanto, este artigo alega ter cuidado com essa proposta emocional sem uma análise especializada e uma proposta de administração pública que possa ser feita com profissionais preparados.

Palavras-chave: Desenvolvimento sustentável, DPSIR, Resolução de problemas
Resumen
Este artículo analiza las intervenciones recientes sobre el cambio climático y el desarrollo sostenible de una joven en la ONU. La intervención histérica y las siguientes manifestaciones en todo el mundo parecen algo diferente de un congreso de la ONU como RIO 92 y Rio 92 + 20, con sabias discusiones y un concierto de muchos actores, parece más para una nueva cruzada. El documento trabaja la idea de una razón de un problema resuelto utilizando la herramienta DPSIR sobre el problema de deforestación de Brasil. El resultado del presente ejercicio muestra muchas fuerzas y conflictos entre el desarrollo económico y social que podrían detener cualquier negociación para salvar el bosque. Los planes alternativos y posibles son muy diferentes del grito de "salvar el planeta" lanzado en la ONU. Es posible desarrollar respuestas en Brasil en el contexto de un país con muchos problemas y una cultura propia de utilizar los recursos naturales como lo hicieron los países occidentales durante muchos años. Por lo tanto, este documento pretende tener cuidado con una propuesta tan emotiva sin un análisis experto y una propuesta de administración pública que se pueda hacer con profesionales preparados.

Palabras clave: desarrollo sostenible, DPSIR, resolución de problemas

Introduction

September 2019, at ONU the intervention of a young activist renewed the discussion about sustainable development, economic and social impacts. It caused a new protest of young people all over the world. It´s very bad media gossip because of the use of young people's good faith. Anyway, this is a new strategy, to call at arm young people, to fight to prevent serious impacts on the planet. If the protest will be successful, if it will used by politicians, it´s early to say. Anyway, a new wave of protest will be expected by the end of this year 2019.

The paper aims to use the Brazil Amazonian case to discuss this hot gossip with more objective arguments. If we are questioning possible sustainable development today, it is easy to argue that there is hypocrisy. The sustainable development is more a paradox than a possible solution, as we´ll discuss later in the theoretical reference section. We´ll discuss, instead a tool: the DPSIR MODEL, a model used by ONU to aid developing public policies and response to environmental problems, because we want to show a rationale of what is possible to do.

The paper will be developed using a pedagogic methodology asking questions, inside of point to sinners. The pedagogy method has been developed from Socrates on to remember to develop autonomous thinking and curiosity. It is possible to support the protest, if it is the case, with some more than an emotional behavior. The paper starts with a short history and explanation about sustainable development. Then we discuss a method to assess problems and finally we discuss a Brazil case. A conclusion ends the paper.

Methodology

The methodology in this paper, uses bibliographic research, and develop a short DIPSR exercise to demonstrate how different academic, expert and emotional response to a problem is.

The final result discusses a problem-solving method far from media-driven hysteria to involve more our students to research and use international or Brazilian tools that are free of use and extremely powerful to explain and support public choices.

The DPSIR is a model Framework provides a structure within which to present the indicators needed to enable feedback to policymakers on environmental quality and the resulting impact of the political choices made.

The ideal problem-solving method from Bransford (1993) states:
Identify the problem
Define and represent the problem
Explore possible strategies or solutions
Act on a selected strategy or solution
Look back and evaluate

We follow the method using the DPSIR tool to show how to develop it. In the end, we demonstrate how to use DPSIR and IDEAL solution tool and how could be applied to develop Public Administration activities.

Sustainable development - The DPSIR MODEL

ONU and the European Environment Agency (EEA) recommended how it´s better to proceed to assesses environmental impacts, distinguishing driving forces, pressures, states, impacts and responses. This process became the Driver-Pressure-State-Impact-Response (DPSIR) Framework and provides a structure within which to present the indicators needed to enable feedback to policymakers on environmental quality and the resulting impact of the political choices made, or to be made in the future.

The DPSIR framework assumes a chain of causal links starting with 'driving forces' (economic sectors, human activities) through 'pressures' (emissions, waste) to 'states' (physical, chemical and biological) and 'impacts' on ecosystems, human health and functions, eventually leading to political 'responses' (prioritisation, target setting, indicators). Establishing a DPSIR framework for a particular setting is a complex task.

All the various cause-effect relationships must be carefully described. Environmental changes can rarely be attributed to a single cause.

Figure 1 – DPSIR framework
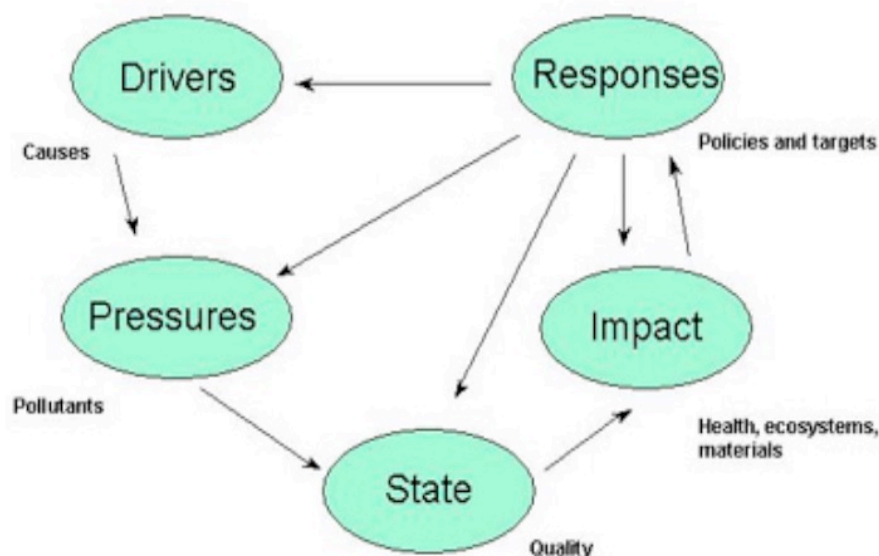
Source: https://www.eea.europa.eu/publications/92-9167-059-6-sum/page002.html
According to the DPSIR framework there is a chain of causal links starting with 'driving forces' (economic sectors, human activities) through 'pressures' (emissions, waste) to 'states' (physical, chemical and biological) and 'impacts' on ecosystems, human health and functions, eventually leading to political 'responses' (prioritisation, target setting, indicators).
        The task of describing the causal chain from driving forces to impacts and responses is complex and must be broken down into sub-tasks, e.g. by considering the pressure-state relationship. However, is a rationale that can be used to show all three elements of sustainable development, only one or other drivers such, for example, cultural drivers?

Driving Forces
        An example of 'driving force' is the need for shelter, food, and water, while examples of secondary driving forces are the need for mobility, entertainment, and culture. For an industrial sector, a driving force could be the need to be profitable and to produce at low costs, while for a nation a driving force could be the need to keep unemployment levels low. In a macroeconomic context, production or consumption processes are structured according to economic sectors (e.g. agriculture, energy, industry, transport, households).
        Example of driving forces are:
        - Population (number, age structure, education levels, political stability)
        - Transport (persons, goods; road, water, air, off-road)
        - Energy use (energy factors per type of activity, fuel types, technology)
        - Power plants (types of plants, age structure, fuel types)
        - Industry (types of plants, age structure, resource types)
        - Refineries/Mining (types of plant/minings, age structure)
        - Agriculture (number of animals, types of crops, stables, fertilizers)
        - Landfills (type, age)
        - Sewage systems (types)

- Non-industrial sectors
- Land use

Pressures

The Driving forces are human activities that exert 'pressures' on the environment, as a result of production or consumption processes. The pressure can be divided into three main types:

excessive use of environmental resources,

changes in land use, and

emissions (of chemicals, waste, radiation, noise) to air, water and soil.

Example of pressures are:
- All use of resources
- Emissions (per driving force for numerous compounds)
- direct emissions to air, water, and soil
- indirect emissions to air, water, and soil
- Production of waste
- Production of noise
- Radiation
- Vibration
- Hazards (risks)

States

As a result of pressures, the environment is affected, or there is a mutation of the "state" of the environment. Mutations are the quality of the various environmental compartments (air, water, soil, etc.) concerning the functions that these compartments fulfill.

Example of environment state mutations:
- Air quality (national, regional, local, urban, etc.)
- Water quality (rivers, lakes, seas, coastal zones, groundwater)
- Soil quality (national, local, natural areas, agricultural areas)
- Ecosystems (biodiversity, vegetation, soil organisms, water organisms)
- Humans (health)
- Soil use

Impacts

Environmental state mutation impacts the quality of ecosystems and the welfare of human beings. All impacts have to be defined and measured. A set of indicators must be developed and used. To be effective all efforts must start with an information database and an environmental assessment. An information data system must be developed as an accounting system. For example, it is possible to respond to driving forces with a policy to change the mode of transportation, e.g from private (cars) to public (trains), while an example of a response related to pressures is a regulation concerning permissible SO_2 levels in flue gases.

Applying DPSIR Model

To develop our analysis of IDEAL problem solving we start from defining the problem. What is deforestation? Deforestation, clearance or clearing is the removal of a forest or stand of trees where the land is thereafter converted to a non-forest use. The removal of trees without sufficient reforestation has resulted in damage to habitat,

biodiversity loss, and aridity. Examples of deforestation include conversion of forestland to farms, ranches, or urban use

Here the exercise developed:
Drivers. Deforestation occurs for many reasons: trees are cut down to be used or sold as fuel or timber, while cleared land is used as pasture for livestock, plantations of commodities and settlements.

Figure 1 - DPSIR Analysis
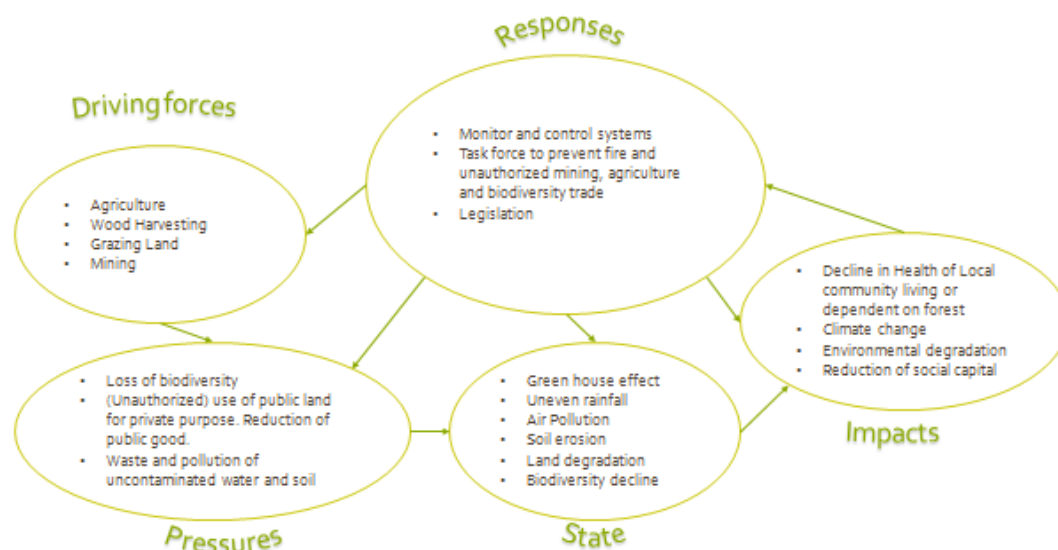
Source: developed by the author

Driving forces are, in our analysis:
 •Agriculture. With the rise in the demands for agricultural products, forests are being destroyed to render space for cultivating crops and building farms, where especially cultivators are encouraged by the government to work on the areas. Moreover, the planters use fire in the development, which leads to the emission of large amounts of carbon dioxide and carbon monoxide in an environment that creates a pessimistic blow on biology.
•Wood Harvesting. Trees are cut down for attaining lumber or timber that is a wood used for constructing houses and making furniture.
•Grazing Land. Forests are also cleared for cattle grazing, which have made them one of the most heavily exploited.
•Mining. Diamond or gold means clearing of all woodland cover with the help of trucks and many other types of equipment. It is another main cause of deforestation.

        From a social point of view which are the stakeholders that can be involved to create a decisive response.
        – State
        • Central Government
        • State Government
        • Municipality
        – Market

• The private organizations for the promotion of Green Campaigns
• The Recycling Industries
• The packaging industries
– Citizen
• The NGOs
• The society

The discussion arena of all stakeholders depends on govern decisions and forums dedicated to the problem. We pointed out that the responses of the Brazilian Federal government were to monitor, control and a little less more. No pressures are been developed from society to develop a different strategy for the Brazilian Amazon forest.

Among the other possible alternative of responses is the one pointed out by the actual government i.e. a controlled used of forest resources and sustainable economic development of forest use. But NGOs and indigenous associations were strongly against. Some citizens and the people living in the Amazon Sate of Brazil are more favorable to the economic use of the forest because they need to survive. So metropolitan citizens and rural and forest inhabitants have two separate positions, as the industry and agroindustry.

Industry needs to save forests because they substitute pollution in the city with preservations certificates elsewhere. Agroindustry needs to use land extensions, soil, and water. Even into the administration have conflicts because the Federal government needs to demonstrate to Brazil and abroad the control and monitoring features when the municipality needs services like public transportation and economic development like mining or vegetal harvesting.

A possible and more complex response could be area reforest. Why society does not propose such an activity? Or, why other alternatives such as reuse of land, concentrate on stables the cattle, develop fish industry to preserve water streams and rivers, are not considered?

We must consider the hypotheses of our problem or that sustainable development is not a real solution but a paradox that is clear when we discuss practice. The case of the Brazilian forest demonstrates that economic, social development and environmental preservation could not be reached at the same time and that nobody cares about the next generations because nobody´s claiming that in Brazil.

All we can say using the DPSIR model is that somewhere in the middle of a negotiation is possible to avoid the destruction of the forest, but the destruction of Mata Atlantica, Caatinga, and Serrado, or the three different types of forest present into Brazil, is continuous and constant all over the time of Brazil Portuguese discover. So we conclude that government and society are more interest in economic development and of the use of financial resources to be invested in social service development.

Deforestation in Brazil
The above section allows us:
  Identify the problem: deforestation
  Define and represent the problem: with the DPSIR model
  Explore possible strategies or solutions: responses and alternatives
  In the present section, we try to discuss the result and explain:
  How to act on a selected strategy or solution
  Evaluate the actual context

One of the main causes of climate change its deforestation. Based on the analysis of the DPSIR model the objective of the exercise is to reduce weather disasters and increasing ambient crisis risks due to climate change into the Brazilian rainforest.

We try to use a tool to develop a problem-solving analysis. On the opposite side, what is the main argument of a little girl Greta or the strategy to change actual behavior about climate change? It´s the same sustained by the former Prime Minister of Norway Gro Harlem Brundtland report in 1987. The Chairperson of the Commission, Gro Harlem Brundtland, was appointed by United Nations Secretary-General Javier Pérez de Cuéllar in December 1983. Formerly known as the World Commission on Environment and Development (WCED) the UN accepted and release the report "Our Common Future" of the Brundtland Commission also known as the Brundtland Report, in October 1987. The document popularized (and defined) the term "Sustainable Development".

Most people agree that the central idea of the Brundtland Commission's definition of "sustainable development" is that of intergenerational equity. However, the results of sustainable development definition came in the report that says:

In its broadest sense, the strategy for sustainable development aims to promote harmony among humans beings and between humanity and nature. In the specific context of the development and environment crises of the 1980s, which current national and international political and economic institutions have not and perhaps cannot overcome, the pursuit of sustainable development requires:

a political system that secures effective citizen participation in decision making. an economic system that can generate surpluses and technical knowledge on a self-reliant and sustained basis a social system that provides for solutions for the tensions arising from disharmonious development.

a production system that respects the obligation to preserve the ecological base for development,

a technological system that can search continuously for new solutions, an international system that fosters sustainable patterns of trade and finance, and an administrative system that is flexible and has the capacity for self-correction.

These requirements are more like goals that should underlie national and international action on development. What matters is the sincerity with which these goals are pursued and the effectiveness with which departures from them are corrected (Brundtland REPORT pg.58)

Starting from the statement above it´s easy to agree that sustainable development is the vision of what could be our better future. Meanwhile, according to Lippert (2004) analysis, many discussions arose about conflicts and difficulties to understand how could be articulate the 1987 Sustainable Development concept and strategy, even if everybody agree to implement it. We argue that sustainable development is a paradox because there is no solution to preserve nature and develop economy and society and the solutions must bypass the three pillars. Solution is what people agreed it is.

So what could be a *real* solution to the problem of Brazilian rainforest destruction using a sustainable development concept? The positivism movement divided our overall knowledge into "different sections" or areas of knowledge. We find easy to study block of knowledge but it´s difficult to go through different areas and understand overall meanings.

How the problem of Brazilian forest fire and destruction is seen with that point of view? First a problem of state control, second a problem of biodiversity and third a problem of bad guys and capitalists. Leaving apart subjective and emotional discussion that is always due because of political interests, the facts are that economic issues always have been mention because the use of this public good is not well controlled and regulated.

So all about Amazonian forest implied two opposite environmental positions: to leave the forest intact or use parts of it to help Brazilian´s economic growth. In terms of Sustainable development how to implement one of the two options without impacts of the future use? If we stop access or extract from forest biodiversity some valuable part we slow economic growth, but if we use the forest we can incur an ecological disaster.

From the environmental point of view, Amazonian forest impacts global pollution and warm continue even if the Brazilian government would be able, if it is possible, to stop every human influence in the forest. We must remember that part of destruction in the forest is caused by natural inhabitants (Indios) and immigrants. In other words, even these people would stop all impacts.

So we must agree that the world will change as all nature changed during the modern era in all the countries, caused by natural evolutions and the growth of demographics. Economic growth has different impacts. The last strategy of developed countries was to export pollutions and nature impacts form their own countries to others. But the economy is a human action that doesn´t stand alone. There is an economic ecosystem that works into society that brings some advantages but also some threats.

The problem in Brazil, as in others countires, is that economic growth and human development can´t be separated as academy claim. Economic growth means also social growth, in reality, there´s no separation between economic and social growth for the people. To be more clear.Brazil is one of the great exporters of commodities such as soy, beef, chicken and iron, petroleum, etc. Part of the Amazonian forest contains gold, petroleum, and many minerals, along with wood and water. From an economic point of view is very difficult to stop using the forest, even because, the caatinga (i.e. the savanna part of Brazil) that is located before the forest it´s continuously destroyed to plant soy and develop extensive cattle farms and this is the development of Brazilian society.

We can see very clear this is the conflict between environmeantal impacts and social-economic growth. But the economy, as we said, belongs to human action and activities. So the civil society claims more control and to benefit more the cake division between Union, Firms and itself. We can see that Brazilian society is more concerned with economic and to rise IDH indices.

We can say that this activity running as redistribution of rent like distributions between States as the example of petroleum bank "Presal" royalties distribution. It´s possible to see redistribution from firms to social programs during the last years. Unfortunately, the impact wasn´t as great as expected, due to many causes included corruption.

On the other hand, what the Brazilian society would choose between rent distribution and reduce it? Here we´ll have another conflict because nobody would reduce economic growth and reduce social development. At the end nobody would stop use the forest, nobody would stop economic growth, nobody would stop social development.

The paradox of sustainable development is that: even trying to achieve the goals of sustainable development, the reality is that the actual trend is exactly the opposite. The demography growth suggests also that all Brazilian will agree to choose between social growth and nature social growth, which implies economic growth. In the end can´t be sustainable development and social development in Brazil, in the actual politic, cultural and economic configuration.

Should the future bring a dramatic change to sustainable growth or a dramatic reduction of the forest? We argue that the paradox is partly due to the premises (i.e. to consider fields of intervention: economic, social and environmental one) and due to how we consider social, economic growth and nature preservation.

For us, we have to start from another point. The point is that sustainability must be a pragmatic choice trying to reduce impacts on nature or develop alternative development. Our civilization is developing a new wave of industrial change, the information era (CASTELLS 2000) but also has a massive concentration in urban and metropolitan sites.

This last is reality of XXI century is the great difference with the urban civilization for example of the Roman era and the first industrial revolution. The sustainable development must start today into intelligent cities. Not the smart cities market as international perception of an automated city, with all sort of TI facilities, but a new concept in which a circular economy lead urban activities. The smart city must have its main goal to reduce gases and develop green transportation. A smart city must be more efficient, with all services and made to bring equity to all the citizens. No slums or separated blocks of old citizens and immigrants.

Our main discussion for sustainable development is today, not to preserve nature but it´s how to deal and manage great metropolis and demographic growth. The discussion must start thinking how to change our behavior and the form of our development paths. This is not a discussion of determinant impacts between economic, social and environment.

Conclusion

The paper discusses, from the new wave of protests about climate changes and sustainable development in 2019, the meaning of sustainable development today for the Brazilian forest. A DPSIR is a simple model to explain why the sustainable development as was stated, theoretically in 1987 is out of date, and for us, always was a paradox.

The DPSIR model shows all conflict and different point of view, the way to solve environmental problems. The model shows also the lack of alternatives evaluations. That demonstrates conflict and also poor debate and no interest in the Brazilian society to solve forest problems stopping the deforestation.

For sure, the emotional effect of the protest and the Brazilian culture of immediate could develop rumors and verbal conflicts in the short time. Nevertheless, the fact is that the forest will continue burning and people will continue to live in great-polluted cities. Every media campaign creates many more sensations that orientations and real solutions, but the media business is to sell emotions. However, we, as scholars and students of public administration, must criticize such mediatic behavior because our business is to solve problems and implement solutions

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