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"Does internationalised trade harm the environment in developing countries? "

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1. <u>Introduction</u>

In recent years, many researchers have put their attention towards the question how the phenomenon of globalisation influences the way we do business today and what other dimensions internationalised trade touches. Although there is no universal definition of globalisation, in line with common literature I understand globalisation as a mainly economic and social movement towards a greater degree of integration and interdependence between countries.

Next to the possible benefits for consumers because of low tariff barriers and increased international collaboration, the negative impact of extreme globalised business on the environment became very visible during the last decade. Not only global warming tends to become a dangerous threat for humanity in the next century; but also air and water pollution as well as a boosted amount of plastics likely jeopardizes many living beings nowadays. As Herman Daly also summarizes, steady economic growth seems unrealistic without risking environmental damage.

Nevertheless, especially for many emerging countries economic growth due to a higher level of trade openness promises to be essential for economic development and it opens the possibility to step out of poverty. At the same time, developing countries are often also affected relatively more by the negative aspects of globalised business. Since a lot of emerging economies are surrounded by a rather weak government, policies regarding environmental or labour protection are usually not implemented well by law and are not common practice in daily business either. This allows multinational companies to produce for a cheaper price in these locations of production while often creating an unhealthy business environment for the communities around; for example due to higher carbon-dioxide emissions. For this reason, in the following essay I want to critically question if internationalised trade is beneficial for the environment with a special focus on developing countries.

After the introduction, I will firstly give a short summary of two acknowledged hypothesis presuming that at least at the beginning of a development countries suffer from environmental degradation due to inefficient use of resources. Furthermore, lax environmental policies make it easy for multinational companies to exploit the observed countries with regard to cost-advantages and low investments in environmental-friendlier technology. This

theoretical background will be followed by a short case study. I will examine the possible long-term impact of the North American Free Trade Agreement on the environment in Mexico. In fact, I want to discuss ecological factors that might contribute to a higher level of pollution in Mexico due to its agreement to NAFTA. Lastly, I will conclude the main findings of this essay and discuss possible future pathways to reduce environmental damage for developing countries.

2. <u>Theoretical background</u>

In this section of the essay I want to give a brief introduction on the relation between economic growth and environmental degradation. One of the most known but also discussed hypothetical concepts in the area of economics is the so called Environmental Kuznets Curve. First developed by Simon Smith Kuznets in the middle of the 20th century, his model analyses the relationship between economic growth, normally measured in GDP per capita, and the observed country`s income distribution. It states that a boost in the economy and with it in the GDP per capita due to economic growth, internationalised trade at first also favours a higher level of inequality within the emerging country. However, when the growing economy will reach a peak point incomes will equalize and inequality will decrease again.

Having a closer look on this basic Kuznets Curve, this graphically illustrated U-shape trend can be best explained by the fact that economic growth in a developing country tends to initially only benefit certain groups. In particular, asset owners are said to be able to enjoy rising investments due to a raised income, which makes further investments possible. On the other hand, due to a change of manufacturing, cheap labour wages are much likely declining. In other words, at the beginning of development the richer people within the country seem to become richer and the poorer become poorer. However, at a specific stage of development the system of a welfare state appears to rise and aims to redistribute the different incomes. Accordingly, income inequality will decline. Further mechanisms in order to minimize the income gap can include new taxation systems or actions to reinvest in trainings to foster Human Resources. In the end, economic growth should then lead to more equality in the long-run.

In line with the standard Kuznets Curve, the Environmental Kuznets Curve predicts that in a first stage of development the environment in a developing country faces huge forms of degradation. From this point of view it is argued that since the economy grows, there is

also an increase in unsustainable development. History gives evidence that in countries with a low level of technology, resources are not extracted in an efficient way. The nature and the environment are rather exploited to a maximum, which results in greater pollution and more garbage. When development continues the blundering of forests and water is reduced. The country seems to give forethought to the environment and gains the financial power to spend money not only for materials. When the country has reached a certain stage of development, people start to care about a clear environment and investments in technology, which favours a more environmental-friendly resource extraction method. All in all, sustainable economic growth becomes more important and environmental damage can be minimized as a result of an on-going development process.

The second hypothesis I want to introduce is named the Pollution Haven Hypothesis, which assumes that most multinational companies will export business activities with a high level of pollution into developing countries. Since most developing countries are characterized by a rather weak government and loose constitutions with regard to environmental protection, it is attractive for many companies to outsource manufacturing process to those regions. It promises additional cost advantages to produce in emerging countries because labour force usually is very cheap, and investments for further sustainable development is not expected as much.

In addition, most global companies have already established factories or general offices in Western countries. Instead of penetrating their home market, these companies prefer to build up new factories in developing economies in order to reach further economic development due to their huge market potential, new acquired purchasing power and size. This means that because of the already satisfied market in their home countries, these companies are pushed to look for new manufacturing locations. On the other hand, there are also pull factors that make firms to expand into a developing country. Next to the already mentioned general low restraints by loose laws and regulations, many governments want attract these multinational companies by further benefits. For example tax benefits or low market entry barriers may be considered positively and make the multinational company to settle down in a specific emerging country. No matter the true reason why a company decides to finally go to a developing country; the numbers of factories there are rising and cause great pollution. This in the end leads to a gap between a cleaner North and a rather polluted South including most developing countries.

To sum up, both hypothetical concepts indicate that much likely globalisation and with it international trade are at least at a certain stage of development harmful for environment in developing country. Although over time the country can perhaps catch up in terms of environmental protection, a low level of technology and vague policies make it unlikely to establish an environmental-friendly manufacturing process attempt. In order to see if these hypotheses seem to hold in reality, I want to examine the affects of the North American Free Trade Agreement on the environment in Mexico in the next section of this essay.

3. <u>Case Study: NAFTA and its effects on the environment in Mexico</u>

The North American Free Trade Agreement was a contract signed by the United States of America, Canada and Mexico and was established to foster free trade within North America. It was taken into force on the 1st January in 1994. It covered the elimination of tariffs, rules of origin, agriculture and sanitary measures, government procurement and laws regarding the protection of intellectual property rights. The primary goal of the Free Trade Agreement was to reduce trading costs, increase employment and let North America stay competitive in the global market. Nevertheless, there were also labour unions that feared lost jobs and dirty industries after the establishment of NAFTA. Other interest groups were sceptical about the effects of NAFTA on the environment. In the following, I want to discuss these environmental aspects and ecological factors more closely.

Firstly, I want to stress that Mexico as a new trading partner became very lucrative for both already industrialized countries because it was, and still is, characterized by a lower level of Human Resources, lower level of technology and looser environmental laws. As economic theory predicts, a lot of American companies saw cost advantages to outsource their production to Mexico in order to save money and enlarge their profits. In particular the area close to the boarder to Mexico became a new target area to build up manufacturing buildings. Indeed, studies show that the amount of plants nearly doubled in size. Moreover, the maquiladora zone in the north of Mexico had already became responsible for 58% of all exports in 1994, while eleven years earlier it was only responsible for 12%. This trend gives reason to believe that with the increase of factories in Mexico also dirty industries established their business in these areas. Consequently, I would argue that due to a growing level of industry water pollution, air pollution and its waste production increased as well.

The second main factor that might contribute to further environmental degradation after the establishment of NAFTA is the usage of additional fertilizers. Since NAFTA let also the demand for agricultural products rise, many lobbyists feared that the local farmers in Mexico were forced to use extra fertilizer in order to satisfy this new demand. Although an economical use of fertilizer can be very helpful to farm the lands in an optimal way; an incautious handling can be very dangerous for the environment. Not only does the production of chemical fertilizers already require a lot of energy and natural resources; but also the main components nitrogen and phosphor themselves are said to have a negative effect on the environment. If dosed too high and too often, nitrogen and phosphor much likely pollute the groundwater. In addition, the air can be affected by ammonia emissions.

Thirdly, I want to point of the topic of deforestation. As already mentioned the low tariff barriers also resulted in an increased demand for agricultural products mainly harvested by Mexican farmers. In order to grow the crops of the demanded natural resources, the famers need space and land. Consequently, a lot of forests and fields needed to be cut down to give area which was used to grow further crops that in the end were mainly exported to the United States of America. Additionally, the high amount of manufacturing companies polluted much likely also the air, which makes the surrounded area not very favourable for the rest of the environment.

All in all it seems that NAFTA had a rather negative effect on the environment in Mexico. Due to its weak governance and policies Mexico seems to not have been able to protect its local farmers and their land to be exploited by multinational companies after NAFTA. In contrast, especially American companies have been able to take advantage of NAFTA on the cost of Mexico`s environment and business location.

4. **Conclusion**

In this last section of my essay I want to conclude the main findings and give ideas about future pathways to protect developing countries from environmental degradation. In the first part of this essay I introduced two hypothetical concepts with regard to internationalised trade and environmental. The Environmental Kuznet Curve said that developing countries suffer extremely at the beginning of a developing process, but in a long-run the developing country will much likely achieve to regulate pollution through mechanisms related to redistribution. The second mentioned hypothesis was the so called Pollution haven Hypotheis that states in

particular lose political systems in most developing countries attract multinational companies due to cost advantages, resulting in a cleaner North and polluted South.

In a second step, I discussed the impact of the North American Free Trade Agreement on the environment in Mexico. I argued that especially the lower level in technology and in Human Resources made Mexico the rather developing business partner. This allowed especially American firms to take advantage of lower costs and lax policies with regard to environmental-friendly manufacturing. In addition, the increased demand for agricultural products due to NAFTA put great pressure on the local farmers in Mexico. Therefore, they were forced to use more fertilizers and create further areas to let crops grow. Both trends were harmful for the environment because the chemical components of the fertilizers lead to a high level of water and air pollution, and Mexico faced additional deforestation.

To sum up, having a closer look at the case of NAFTA it tends to be true that increased trade much likely leads to a higher level of environmental degradation in developing countries. This means that also the given hypothesis in the case of NAFTA and Mexico seem to hold and that Mexico has not achieved a peak point, where it can protect itself from exploitation and dirty industries. However, for future agreements similar to NAFTA I would argue that the impacts on the environment are lower or at least more discussed. I would argue that since society and companies are more awareness of their impacts today, environmental interests are more present and taken closer into account, when starting business in a foreign country. On top, mainly public pressure but also the self-conception of most multinational companies changed and many see the environment as a key factor for economic successes. By doing so, a sustainable usage of natural resources and environmental-friendlier manufacturing is priority to many companies nowadays. In the end this gives hope for a greener future and the possibility for developing to catch up to create a healthy environment for everybody.

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