**Sustainability Questions**

Student

Institution

Instructor Name

Course

Date

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**Question One**

Some of the characteristics of Smart growth policies include mixed land uses, capitalizing on compact building designs, and motivating stakeholder and community collaboration in decisions associated with development.

Comparably, new urbanism's characteristics that distinguish it from smart growth's principles are promoting a plastic-free ecological environment and emphasizing renewable energy.

Based on my present knowledge of the two elements, I am inclined to support New Urbanism in contemporary times because the world is at a point where ecological issues are increasingly prevailing and expanding. This occurrence warrants immediate and productive solutions to mitigate and alleviate causal factors, for instance, plastic pollution becoming a core environmental hazard and climate change and its effects threatening human existence and the Earth's sustainability. It is up to us to care for our surroundings and individually contribute to the greater goal.

**Question Two**

Worldwide, climate change is an occurrence in the contemporary universe whose repercussions will impact all life. Individuals are not fully cognizant of its implications beyond the extreme repercussions it is intended to have on Earth. This problem has two essential components; individuals need to be primarily educated and enlightened on the repercussions, and policymakers and various governments must proactively be involved in developing practical approaches to handle this situation. Looking at how various nations communicate their worries and demonstrate their perspective contrary to the prevailing issue, it is noticeable that developed nations and their citizens are more aware and concerned about the goal of climate change issue, even though not all individuals understand the severity of its effects. This is because they are also the primary contributors to this outcome. Compared to under-developed nations and their populations, these countries are more vulnerable. At the same time, their populaces are less mindful, educated, and in some cases, unconcerned about the issue of climate change.

Notably, Africa experiences a widespread issue of desertification, a cumulative impact of global warming. Thus, with many developed nations contributing extensively to the worsening of the issue, it is safe to say Africa is suffering at the expense of developed economies. Looking at Asia, many developing nations in this continent contribute to global warming due to the high population. They are dramatically increasing greenhouse emissions as a way of meeting the needs of their enormous population. For instance, nations like India and China have for long held that if developed economies collaborate to reduce greenhouse gas emissions, they would most likely join the effort. Nevertheless, countries like Japan have already begun taking considerable measures to combat the global warming effects through considerable input from their citizens.

On the other hand, the industrialized nations of Europe have taken the problem more seriously and have adopted various actions to minimize carbon dioxide emissions and effectively address its implications. Citizens in Europe have become increasingly aware of the situation, and the leaders are proactively working with citizens to find every legal means possible to reduce emissions of greenhouse gases like carbon dioxide. However, developing European countries (particularly those in the east) are still not well-informed and tend to lag in progress in ecologically-related issues.

Different nations have reacted differently on both American continents. For instance, while the U.S. (the primary producer of greenhouse gases) has not implemented strict restrictions and several states have consistently held differing opinions, Mexico and Canada have consistently made constructive efforts to mitigate the effects of global warming. Also, some politicians believe that because human actions are not the primary driver of global warming and are a natural phenomenon, no action needs to be pursued. Besides, governments assert that reducing industrial production in an effort to lessen climate change will adversely affect the economy and, consequently, people's quality of life.

Therefore, to safeguard nations and their populations' interests, it is important to abide by the international agreements set up concerning the environment, like the Montreal and Kyoto Protocol. The latter is more focused on reducing greenhouse emissions, while the former is more inclined to reduce the deterioration of the ozone layer. Notably, America pulling out of the Paris agreement, which focuses on global warming, is not a good indication and reinforces the assertion that it does not take the issue seriously and fails to adopt measures to mitigate the issue

**Question Three**

Non-point source pollution types that negatively affect the Chesapeake Bay presently include

1. Sediments
2. Phosphorous
3. Nitrogen

These non-point source pollutants hinder sunlight penetration to vegetation like grass and are produced from agricultural run-off, suburban areas, and treatment plants.

Sediments

These pollutants can be mitigated primarily through government initiatives like establishing effective policies and ensuring they are implemented. Also, developing functional and structural strategies that are adaptive to the location can be helpful. Additionally, lowering sediment output by controlling erosion and entrapment of upstream sediments and handling flows reduces reservoir capture in periods when high sediment yields are experienced. Notably, many different methods, including mechanical and hydraulic options, can be employed to evacuate sediment previously lodged in reservoirs, thus, allowing for the reclamation of all or part of the initial storage capacity.

**Question Four**

Management and planning for the environment will be more transparent if environmental standards are understood from all aspects. Additionally, this will enhance cooperation and communication between various parties.

The processes that exist between societies and ecosystems, as well as inside ecosystems, need to be considered by ecosystem-based management (EBM) approaches. As such, the progress and effectiveness of environmental management techniques to the selected implementation strategies and policies is dependent on stakeholders' dedication and approval

For instance, the inclusion of various participants in decision-making operations and environmental policy assessments has proven successful in projects like the Enugu-Songhai Initiative in Nigeria. The participants in this initiative represented diverse interest groups, locals, Not-for-profit organizations, various ministries, and government agencies. Fortunately, the initiative has yet to encounter significant issues – an unusual occurrence for ecology-based initiatives in this region.

Notably, projects that experience considerable issues are those whose stakeholders are excluded in decision-making and policy operations concerning the environment. The resultant impact is the emergence of insufficient infrastructure and essential services, surrounding contamination, environmental degradation, oil spillage, etcetera. Hence the emphasis on the significance of a comprehensive understanding of ecological principles.