## **3D COMPETITION NOTES:**

Sustainable Development is "continuing improvements in the present quality of life at a lower intensity of resource use, thereby leaving behind for future generations an undiminished stock of productive assets (i.e., manufactured, natural and social capital) that will enhance opportunities for improving their quality of life". In more simple terms, sustainable development can be seen as development which allows the current generation to meet their developmental goal without impacting on future generations to do the same. So it ensures that whatever resources a particular country or community is endowed with is available for both current and future generations.

Basically you need some level economic progress to achieve any type of development. But also you would need to ensure that everyone in the society is benefitting and that no one is left out. It focuses heavily on the environmental dimension because we get all our resources from the environment, we dispose the waste back into the environment and the environment can hamper development plans (natural disaster, climate change etc). Therefore in the literature on SED we say the environment has a source, sink and threat function, and that SIDS like TT are open macro economies operating in a closed ecology.

The posters should show how the existence of extractive industries can be used to develop the local communities where they are housed in such a way that in the years to come the future generation will be able to benefit from their existence.

The three pillars of SED are the social, economic and environmental pillars.

Environment: Extractive industries are directly dependent on the environment, thus the concept of SED implies that although extraction is taking place, it should not be done in such a way that it compromises the natural environment. Thus, such companies should seek to use more efficient methods of extraction and production which can reduce the negative impacts on the environment. Additionally, their use of natural resources should be done in such a way that it does not deplete the community's resources.

We must also consider the carrying capacity of the area to assimilate the waste from the use of the resource. The value of using the resource as opposed to not using it (opportunity cost), valuation of areas and species e.g. if the community has a swamp, mangroves, park or forest, special birds or insects etc what is the cost of extracting the resource both in money terms and the Intrinsic terms. What are the possible implications e.g. can the building of a refinery lead to flooding in some areas, or an increase in the carbon foot prints.

Economic: We must consider the MCIV of the resource being extracted, that is the (M) a measurement of how much of the resource exists and can be utilized (actual/proven, potential and probable), (C) the capturing of the rents from these resources (how much percent remain in the local hands etc), (I) investment either back into the resource or in other sectors within the community/country, also saving for a rainy day, (V) value added through improvements in the technology use, or education or increased productivity to capture as much rents as possible and to utilize the resource as efficiently as possible.

Additionally, most energy companies resident in Trinidad and Tobago are multinational companies that expatriate profits to the home of the head office. SED would require that while these companies are present in these communities, some of the profits earned are used to develop the local infrastructure of that community. Such infrastructural development should be able to meet some of the needs of the extractive industry at present, but still be capable of being sustained, should the extractive companies seize to operate.

Social: The social pillar of SED focuses its attention on people. What groups benefit from the use of the resource? How are the members of the community affected by the existence of these companies? Issues to be considered are health, social activity, poverty levels, education and employment. SED would require that all these are impacted positively i.e. the health of residents is not plagued by respiratory and other diseases associated with the presence of extractive industries; social activity is buzzing not only on an individual level but on a wider community basis as evidenced by community and sporting centres; education levels should be on the rise as evident by the numerous schools and training opportunities for jobs in the extractive sector; the local content should show that the industries employ members of the local community rather than importing labour from outside the community or the country.

NB. An extractive industry is one which consumes or utilizes naturally occurring raw materials in a non-sustainable and environmentally-damaging manner. In other words, it is any industry based on the intrusive and aggressive removal of a non-renewable natural resource.

Egs. of extractive industry include: the energy sector (oil and gas); pitch; quarrying