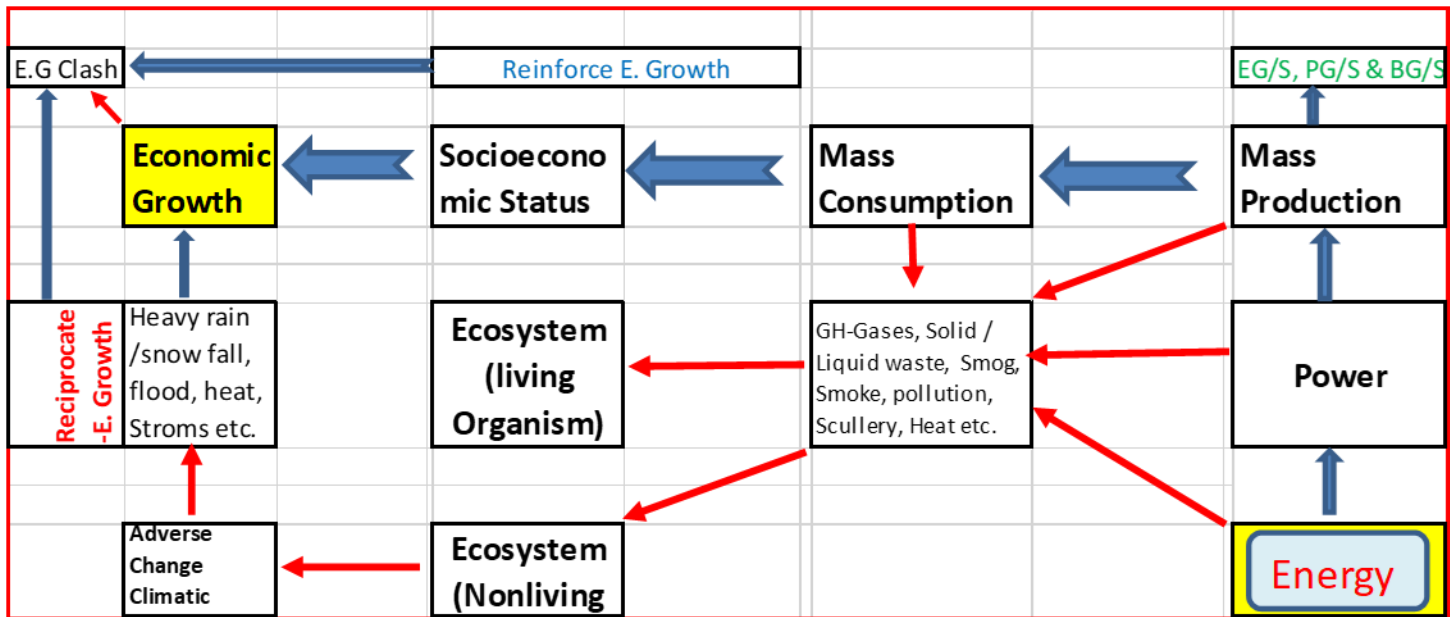


Economic Growth adversely effects the Climate Change

Preface.

Climate has been viewed as an independent factor for economic growth before the era of mass production. People started living in different climatic regions conducive for production of different crops, fruit and vegetables for livelihood as an individual or entrepreneur. All activities of production, manufacturing and logistics, either for individual or commercial purpose, were manual while leaving no adverse upshot on climate or natural ecosystem. Later on, methods of Production & distribution has been transformed from manual to mechanization, by using the fossil fuel, for mass production to ensure the economic growth. Now the direct relationship between the Industrialized Economic Growth and, consequent, adverse climatic change jolted the world and turned it a big threat to human lives, food security and properties etc. Recent example of heavy rains and flood in Pakistan can be cited as testimony for situation of adverse change in climate due to swelling Economic Growth. **Fossil fuel** based method of production and distribution is very critical factor that does not permit both extremes to create balance at any stage of growth. Following are the most relevant variables covering the articles.

1. Economic growth; Increase in value of goods and services produced for socioeconomic status of all individuals.
2. Socioeconomic Status-The ultimate goal of Economic Growth.
3. Mass Production / Consumption-The compulsory requirement to uplift socioeconomic status. Social status is directly proportional to level of consumption of goods or services.
4. Mass Production leaves a devastated effects on ecosystem/climate-The decisive result of Mass production / Consumption that creates imbalance between E. growth & Climate.
5. Ecosystem/Climatic Change-Economic growth-A big stimulator of adverse Climate change.
6. Way forward-Replace nonrenewable (fossil fuel energy) with renewable energy.



1. **Economic Growth:** There are multifarious definition of Economic Growth but, within the scope of articles, the most relevant definition is," the increase in the value of an economy's goods and services in a country which creates more **INCOME** in term of profit to entrepreneur or salary to an employee". Healthier income quantum enables the entrepreneur or employee to have better **SOCIOECONOMIC STATUS**- the final outcome of economic growth.
2. **Socioeconomic Status-The ultimate goal of Economic Growth -:** Previously PCI (Per Capita Income) method was used to measure socioeconomic status which has now been replaced with HDI (Human Development Index). There are four elements, one independent and other three dependent, to determine the Socioeconomic Status. One can easily purchase health, education and dwelling with one's substantial income. Social status , consumption of health/food/dwelling, has direct relationship with Economic Status (Level of income)

Variables			
Dependent			Independent
Socio			Economic
Health	Education	Dwelling	Income

Social status: Selecting sophisticated & costly hospital for purchase of health treatment, getting advanced education from reputed & expensive educational institute and dwelling in posh locality measure the social status of an individual. And all this depends upon your level of income. Low income leads to miserable social status. Production of such three **Basic Goods & Services** (Health, Education and Dwelling) needs a huge

infrastructure and heavy expenditure during the gestation period and to run the operational activities afterward.

2.1 Economy / Income: Two other types of Goods & Services, Public Goods & Services and Economic Goods & Services, are required for production/ generation/creation of Basic Goods & Services. Production of all three types of goods would be a source of income for an individual.

2.2 Three types of Goods required by almost all individuals at glob:

2.2.1 Public Goods & Services: Public Goods & Services are of two types from which all inhabitants are equally benefited;

2.3.1.1 Tailor made Public Goods & Services: Such Goods and services for which no cost paid at the time of usage. For example promulgation of policies for creation of infrastructure for health, education, dwelling, liquid & solid waste management, eternal law & order, external defense and construction of motorways, highways, canals, courts, Icon for the cities and other projects having a common pride for all.

2.3.1.2 Natural Public Goods & Services: A set of PGS bestowed by Allah Almighty under perfect ecosystem comprises of clean & sweet water, jungles, animals, glaciers, rivers, beasts, mountains, pollution free environment, rain, sunlight, O-Zone layer and landscape etc. There is no need of any plant, machinery or any other human intervention, save Allah Almighty, for production of these free of cost public goods and services.

2.2.2 Economic Goods & Services: These goods are God bestowed items without which not a single Public or Basic good or service can be produced or made available to public. These Goods are segregated into three categories as under:

2.2.2.1 Renewable - Above the crest: Rivers, seas, beasts, birds, fresh air, glaciers, sunlight, clay, wind, soil, and ocean etc.

2.2.2.2 Nonrenewable – Blow the crest: Minerals, Metals & Gases.

2.2.2.3 Renewable – Human soft & hard skills: Human resource capital transforms these economic goods & services into Public / Basic goods & services against certain consideration (Income).

2.2.3 Basic Goods & Services: These goods are also of three types;

2.2.3.1 Economic Goods & Services: Mostly Job or business to generate the income for livelihood or social status.

2.2.3.2 Basic Goods & Services: Food, Shelter and Clothing.

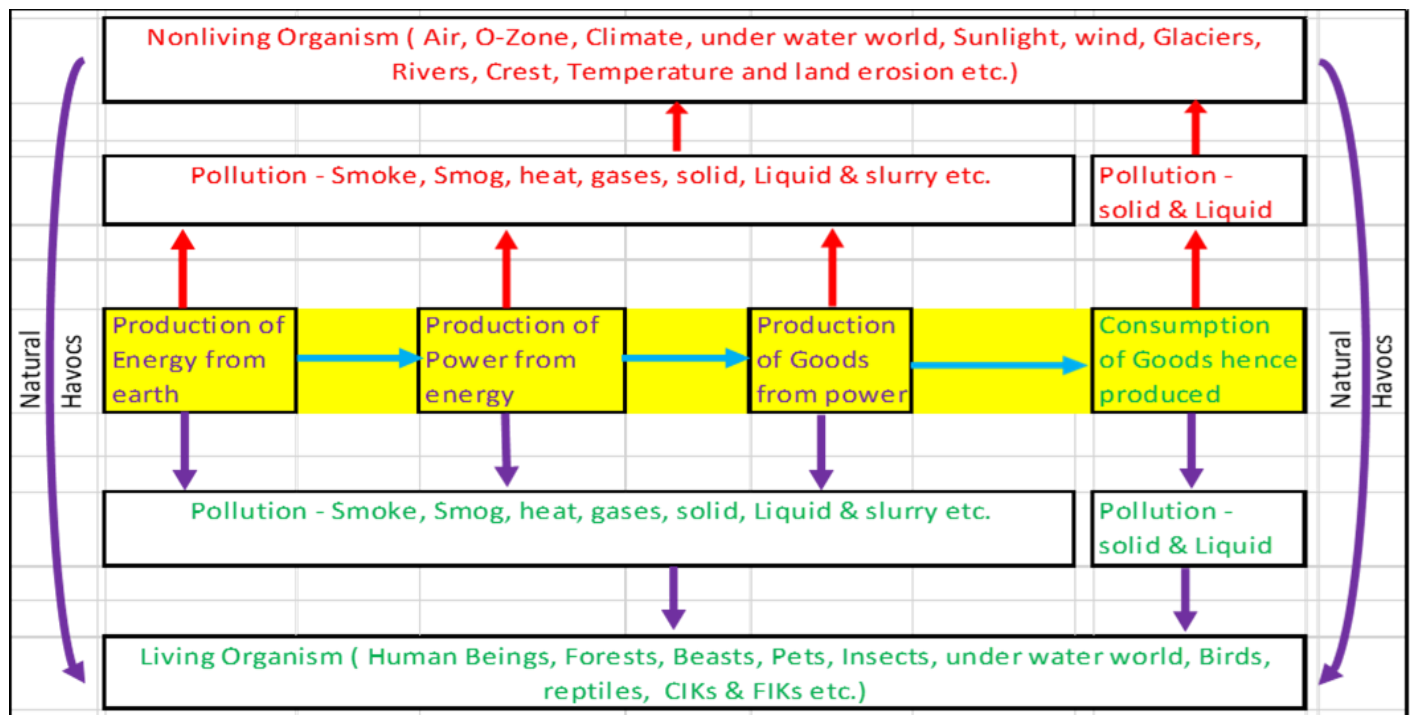
2.2.3.3 Social Goods & Services: Health, Education and dwelling.

3. **Mass Production & Consumption**-The compulsory requirement to uplift socioeconomic status.
Economic Growth can only be ensured by the mass production and consumption of goods and services. Living standard is directly proportional to the consumption level of health, education and dwelling. We need a **HUGE QUANTITY OF ENERGY** to manufacture plants, machinery, road infrastructure, buildings, vehicles, railway, airplanes, agriculture & industrial raw material for production of under consideration **three goods and services**.
4. **Mass Production leaves a devastated effects on ecosystem/climate** -The decisive result of Mass production / Consumption; Following three major indirect killers emerge out of mass production and consumption;
 - I. **Greenhouse gases**: Carbon dioxide, methane, nitrous oxide, hydro chlorofluorocarbons (HCFCs), hydro fluorocarbons (HFCs) and o-zone layer in the lower atmosphere. These gases emerge from exploration of energy, conversion of energy into power (GENECOs), construction of infrastructure, running of factories, kilns and alike one.
 - II. **Liquid Waste**: Emerges from exploration of energy, industrial operations and from goods used for social status.
 - III. **Solid Waste**: Emerges from production energy, mining & quarrying, industrial operations and mass consumption of goods / services related to social status.

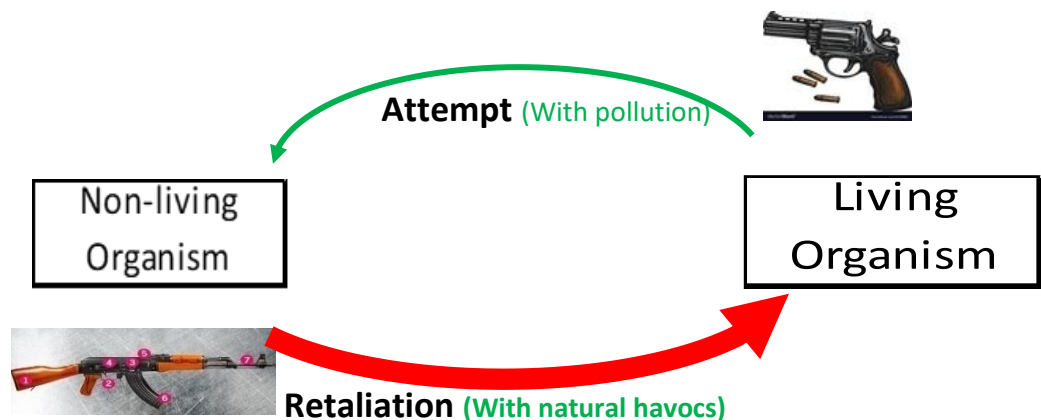
5. **Ecosystem in disorder / Climatic Change**-A big reliant to Economic Growth;

An ecosystem is a community of living organisms in conjunction with the nonliving components of their environment and interacting as a system.

- 5.1 **Living Organism**: Animals, trees, birds, germs, insects, reptiles, bacteria, underwater living world and **human beings etc.** are among the living organisms.
- 5.2 **Nonliving Organism**: While water, air, sunlight, air combination of gases, O-zone layer, land, soil, glaciers, atmosphere and mountains etc. are nonliving components of God Gifted ecosystem.
- 5.3 **Devastated reaction of climatic change**: Mass production/consumption, for economic growth or socioeconomic status, sends huge amount of fetal pollution towards both living and nonliving organism causing the huge disorder in ecosystem and climate. **Finally the disorder in nonliving organism in atmosphere destroy all infrastructure developed at earth for the Economic Growth or uplifting the Social Status.** Living organisms have mild reaction while nonliving react powerfully.



5.4 **Intensity of reaction:** Power of reaction from nonliving organism is severe than the attempt of living organism.



6. **Way forward-** Replace nonrenewable (fossil fuel energy) with renewable energy.

It's a very critical situation that compels us to choose one of the two, either Economic Growth or non-reliant ecosystem / climate. Uplifting Economic Growth / Socioeconomic Status will ultimately hit the ecosystem or climate that, in retaliation, reciprocates all the economic indicators constituting the Economic Growth. Followings are way forward to elevate the economic growth without creating any turbulence for climate's existing complexity:

- ✓ Transformation of nonrenewable energy (fossil fuel-oil, gas, coal and nuclear energy etc.) to renewable energy sources (Solar, wind, hydropower, geothermal, ocean energy etc.) for production of Economic, Public & Basic Goods/Services for uplifting the socioeconomic status.
- ✓ Construction of ring roads in all cities and shifting all offices, educational institution & government offices around the ring road. Electric train should be used as a mean of mass transit, to avoid smoke emitting transport, on ring road.
- ✓ A comprehensive scheme for plantation and green belts along the roads is required to maintain the composition of different gases in O-Zone Layer.
- ✓ Rain fed water reservoir be created for plantation and crops.
- ✓ Legislation for proper disposal of liquid & solid waste.
- ✓ Companies with latest technology be appointed for disposal of both liquid and solid waste from metropolitan cities.
- ✓ All other smoke emitting vehicles, plant, machinery and other gadgets be properly taxed.
- ✓ Coal fire Stove, FCK and BTK types of kilns should be banded and transformed on ZIG-ZAG technology, in first phase, and on complete mechanization afterward.

Pollution free glob, by using renewable sources of energy for production of three types of goods/services for socioeconomic status, can ensure the sustainable Economic Growth in non-retaliate climate / ecosystem. Adverse Climate change, due to economic growth, would be worst foe of 8.0 billion people at globe.

About the Author: The writer is a Fellow Member of ICMA Pakistan and CEO at Mazhar Mahmood & Company in Rawalpindi. He is an Official Trainer of SMEDA for Business Development and also Consultant at PIPS (Parliament House) for commentary on performance of outgoing year & Annual Budget. He served as a GM (Finance) in a business group and also Zonal Head of Accounts at Muller & Phipps Pakistan (Pvt) Ltd.