

ATTRIBUTES OF GROWTH AND STEADY STATE SETTLEMENTS

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The following table is an update of the table in my 1979 publication 'Ekistics and energetics: A sustainable future planning approach'. *Urban Ecology* 4, 227-233. [PDF](#)

Attribute	Growth Society	Steady State Society
Economic Philosophy		
Primary Concept	Scarcity	Scarcity
Attitude to Scarcity	Conflict	Acceptance
Purpose of Production	Consumption	Maintenance
Emphasis on Production	Productivity	Distribution
Timescale Horizon	Narrow	Wide
Incentive for Work	Income for consumption	Satisfaction
Typical Attitude to Work	Necessary imposition	Accepted part of life
Work and Leisure	Differentiated	Little difference
Place of Humankind in Ecosystem	Domination	Participatory
Population		
Typical Annual Growth Rate of Natural Population	2.0 %	Ideally average 0%
Doubling Time	36 Years	No doubling time with zero net immigration
Age Composition Profile	Triangular	Cylindrical
Total Fertility	Global peak of 5.10 in 1964 declining to 2.44 in 2016	Approx. 2.11
Time to Re-stabilise	70 years	Already stable
Net Reproduction Rate	Global peak of 1.892 (1965-1970) declining to 1.099 (2015-2020) Dependent on death rate	1 000
Family Structure	Nuclear family	Extended family
Urbanisation	High (80%)	Lower (20-40 %?)

Capital Stock		
Durability	Low	High
Maintenance Energy Cost	High	Low
Recycling	Limited	Optimised within inevitable dissipation and energy constraints
Creation of New Capital Stock	A large proportion of new capital stock is additional capital stock using additional materials	New capital stock is replacement capital stock. Materials of old capital stock are recycled within above constraints
Energy Production		
Source	Energy stock	Energy flow
Limits of Production	Peaking (maximum rate of extraction) and inevitable EROI decline to 1.0	Level of technology and availability of key scarce minerals invested in viable renewable energy sources
Permanence of Source	Non-renewable	Renewable over medium time scale, but ultimately long-term technological decline as minerals dissipate
Level of Pollution	High Pollution	Low Pollution
Pattern of Energy Flow	Increasing then decline	Slow decline due to inevitable slow dissipation of materials and limits of recycling unless less abrupt fall precipitated by economic shock
Consumption		
Pattern per Capita	Increasing per capita	Constant per capita with minor fluctuations
Goods and Services Consumption	Unnecessary consumption	Necessary consumption
Tertiary Sector	Large tertiary sector	Small tertiary sector – self sufficiency
Distribution of Consumption	Unequal distribution	Equal distribution
Wastage	High wastage	Low wastage

Industrial Production		
Pollution	Heavy pollution	Light or no pollution
Energy Consumption	High energy consumption	Low energy consumption
Technological Accidents	Frequent and serious	Infrequent and insignificant
Type of Processes	Complicated	Comprehensible and ideally locally supported
Impact on other Life Forms	Widespread destruction of other life forms	Participatory dependence on other life forms as an integral part of a healthy ecosystem and associated energy flow
Risk of Processes	Ecologically dangerous	Ecologically adapted
Organisation of Production		
Concentration of Production	Centralised	Decentralised within communities
Interdependency of Production	High interdependence, long supply chains	More self-sufficiency, shorter supply chains
Size of Productions Units	Large production units	Smaller production units
Specialisation of Production	High specialisation, emphasis on mass production	Low specialisation, emphasis on artisanship
Use of Science & Technology	Science and technology practised by specialist elite with high risk of unintended consequences	Science and technology practised by all using more appropriate, benign technology
Use of Capital, Energy, and Labour	Capital and energy intensive	More labour intensive

Food Production		
Type of Agricultural System	Monoculture and uniformity	Permaculture and diversification
Participation in food production	Industrialised production by large farm units	Production of food involves every family
Factors of production	Energy and capital intensive	More labour-intensive
Use of Fertilisers	Artificial fertilisers	Natural fertilisers
Use of animals	Animals used primarily as food source	Animals perhaps used again for mechanical energy value
Impact on soil	Erosion and depletion	Replenishment
EROEI	Low < 1.0	High > 10
Control of pests	Dangerous pesticides used	Ecological techniques used
Environmental Protection	Largely treated as a “nice to have” and source and sink, often as an “externality” to the market	Environmental integrity and ecosystem services become increasingly important as the support for the economy and as material resources contract