SOCIO-ECO-ECONOMIC SYSTEM INTELLECTUALIZATION: FROM GROWTH TO DEVELOPMENT

Pavlo Denysenko
Sumy State University, Sumy, Ukraine

Considering sustainability as a target we usually consider our current needs satisfaction as one of tradeoff parameters. Also our current ("unsustainable" in some way) consumption according to our income is our main base of comparison to some other variant of ("more sustainable") preferences and lifestyle in general. It means that sustainability becomes possible if our income generation and its further spending do not harm the environment in unrecoverable manner.

In Fig.1 we can see that according to green economics paradigm the economic system is considered as a part of socio-economic system which is also a part of bigger environmental system. And humans represent all three sub-systems. Our everyday choices are harmful in the long run because of two main factors of limited natural resources and pollution. In general we can either take too much from the environment or return too much waste back. Taking into account that it is more and more "us" at this planet sustainable growth is possible only if our needs will be satisfied in more and more efficient way. So technology and science (and education as its development factor) becomes the main factor of sustainability achievement.

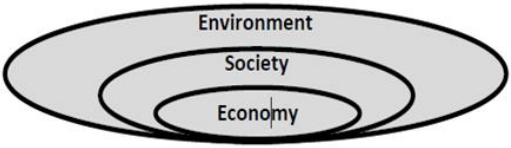


Figure 1. Green economics concept of socio-economic system components interconnection with environment.

At the same time in Fig.2 we see that sustainable development strategic target (in the intersection point of all three sets of goals) does not reflect the inclusion of economic

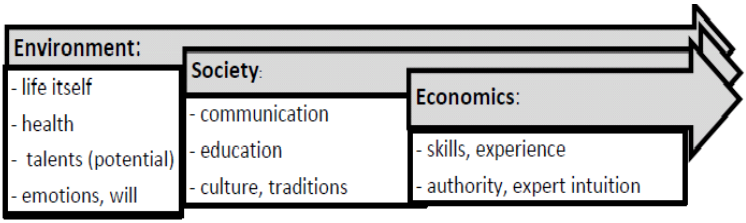
system into social and bigger socioeconomic system into environment. Main message here can be to show the point where “the goals meet”.

Figure 2. Conventional view on sustainable development strategy goals interconnection.

Human creativity armed with fundamental knowledge and professional skills can definitely implement technological changes needed to push the limits of surrounding environment. In theories of economic growth (very desirable factor of quality of life) one of the trends for current decade was to consider endogenous technological change in the growth models. It reveals the idea that limited resource inputs into socio-eco-economic system (such as economy of some region) can result in progress. In addition due to the possible substitution of production factors if technological change makes the cleaner nature management cheaper - this leads to getting rid of the “dirtier” productions. In other words socio-eco-economic system becomes cleaner in general and therefore more sustainable.

Current ecological economics as a part of neoclassical theory considers natural resources as a subject for Pareto efficient allocation. It means that the harm for different ecosystem services due to the extraction and pollution becomes sufficient parameters for production decision making. And growth as a quantitative increase in throughput with its natural limits has an opportunity to transform into development - qualitative improvement in goods and services and in human well-being in general.

Personal human inclusion first into environment (even before being born) and later in socio-economic system can be shown as in Fig. 3.



It is possible to conclude that comprehensive human life, strong health and satisfied basic needs, intellectual curiosity implemented by society can be both tool and

the goal on the way to sustainability achievement.

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