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Downscaling the need for common resources while saving money. Lessons from an innovative socio-sanitary structure run by a humanitarian NGO: Emergency's Salam hospital in Khartoum, Sudan

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A really equitable use of common resources is more and more a must to face the compelling issues of ecological sustainability and climate change, yet it also represents an often neglected responsibility to overcome a culture of social injustice, exploitation, and war at a global level. In the world of humanitarian NGOs, paradoxical counter-productive effects might follow frequently necessary monetary savings if a systemic vision is not adopted. For this research, an Italian NGO – 'Emergency' –

has been chosen as a case study, for its undertaking a significant care for sustainability alongside an ethical spending sobriety, respectful of its donors.

The emergy method has been applied to one of the hospitals that such NGO planned, built, and currently runs in areas of crisis: the Salam Centre for Cardiac Surgery in Khartoum, Sudan. The structure offers free high standard assistance to people from many African and non-African countries. On average, nearly 800 patients are admitted every year, and over 700 of these undergo an open-heart surgical operation. Sudanese nurses and medical doctors are also trained inside the Salam Centre. The functioning of Emergency's healthcare provision system significantly relies on voluntary donations, whose flows have therefore been investigated and highlighted in this work. Among the research questions is the evaluation of the NGO's efforts to save Commons since the planning phase until the everyday management of a complex structure in a complex environment. In addition to this, the whole 'Emergency model' is analyzed as a possible example for more applications in the sanitary and non-sanitary field.

Building technologies, energy systems, hospital operations, and donation mechanisms are taken into account. A focus is dedicated to the architectural low-tech innovation while targeting energy efficiency. Parameters are proposed for the comparison with other structures, as well as for the assessment of socio-economic effects of the hospital in both its support and its benefit areas.

Will be ecological economics replaced by green or bioeconomy within green growth and degrowth transformation?

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Nowadays scientific articles as same as popular literature very often use the terms ecological economics, bioeconomy and green economy like a synonymous expressions. The same situation is with interpretation of sustainable development, green growth and degrowth. All these terms serve like representatives of one big family of an alternative green way of our future. Sustainability is added like a label for all of these newly emerged approaches of economic practice.

Unfortunately the differences among expression mentioned above are really serious and their misinterpretation by politicians is really dangerous from the perspective of ecological economics. The crucial question is what is the role of ecological economy within the three types of transforming interpretations of growth e.g. sustainable development, green growth and degrowth. Recent policy of EU seems to support bioeconomy and green economy. Ecological economy does not have such a political and social support. Anyway the implementation of the ecological economics ideas needs the state support as the basic condition for their application. What are the main reasons of low attention and political support of the ecological economics on global and national level in comparison with other green form of economy?

These questions cannot be answered without the analysis of relationship among ecological economics, green economy and bioeconomy as same as some history of appearance of these new theories together with sustainable development, green growth and degrowth philosophy.

From the late seventies we are witness of some greening in economic thinking. This change is reflected in appearance of sustainable development philosophy (SD) as a qualitative alternative to the endless quantitative economic growth. The publication of the Brundtland Commission Report highlighted the fact that current patterns of resource consumption and environmental degradation could not continue in recent way (Brundtland Commission - World Commission on Environment and Development -WCED, 1987). In fact SD is mixture of scientific knowledge system, environmental values, ideology, social actions, moral attitudes, qualitative patterns as well as quantitative. The real core of sustainable development is ecological economics a new paradigm of economy which incorporated thermodynamic laws into economic theory. The most important ideas are size of economy related to carrying capacity