

# Institutional Sustainability And Sustainable Development

~ Ph. D. Student **Grațîela-Denisa Iordache** (Advanced Studies, Romanian Academy, Calea Victoriei, Bucharest, Romania)

E-mail: [gra\\_den@yahoo.com](mailto:gra_den@yahoo.com)

**Abstract:** *Institutional Sustainability and Sustainable Development are two concepts very often used together. Their meanings are blurring and versatile. This paper aims to define each concept distinctly and to identify their similarities, if any. To achieve these objectives, I will use the method of logical definition of a concept. Firstly I will identify the sufficiency predicates for Sustainable Development. Secondly I will define the concept of Sustainability. Thirdly, I will use sufficiency attributes to define the concept of Institutional Sustainability.*

**Keywords:** sustainability; institutional sustainability, sustainable development; relationship institutional sustainability-sustainable development;

JEL Classification: F49, O43, R11

## Introduction

The concepts of Sustainable Development and Institutional Sustainability are largely used in the last decades. They are used in different contexts by international organizations, researchers, managers, students, politicians etc. and their meanings are very fluid.

The attempts of defining the concept of Sustainable Development are numerous and the most renowned definition is the Brundtland Commission one. According to this definition, Sustainable Development is considered to be the “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”

Furthermore, the concept of Institutional Sustainability was used in connection with institutional dimension of sustainable development process (Stefanie Pfahl, Institutional Sustainability). However, the concept is not clearly defined, and it is using the formal meaning of institutions such as organizations, bodies and not the broader meaning of institutions such as organizations, bodies, but also norms, procedures, formal and informal rules, etc.

Therefore, the present paper aims to clearly define the concepts of Institutional Sustainability and Sustainable Development. To achieve this objective, I will use the method of logical definition.

## Methodology

According to Mr. Dinga, using the method of logical definition of a concept implies the use of the sufficiency predicates.

The process of defining abstract concepts from logical point of view follows the next steps:

Identifying sufficiency predicates  
Qualitative analysis of the identified sufficiency predicates:

Checking the following requirements for the pairs of sufficiency predicates:

independence (none is the logical result of another),

consistency (none is contradictory with another)

Checking the completeness of the sufficiency predicates that generate a construct

Noting with Ps the multitude of sufficiency predicates we may write:

$$Ps = \{P1, P2, P3\}$$

## The concept of Sustainable Development

In the following we will identify the sufficiency predicates for Sustainable Development concept (SD).

### AR-anti-resilience

The value of the status parameter must undergo structural changes (qualitative leaps) based on quantitative accumulations, at a certain threshold

### Performative Acceptability- PA

The value reached for the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

### Non-Localization- NL

Changing the status parameter value is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/process contemplated)

### Full Replicability-FR

It is the essential predicate of the concept and it has the meaning of a full replicability of a phenomenon/process under the

non-localization condition

Therefore, from the logical point of view the concept of Sustainable Development may be describe as it follows:

$SD=(AR) \otimes(NL) \otimes(PA)\otimes(FR)$ , where  $\otimes$  is the symbol for logical conjunction

Hence, the Sustainable Development is the ability of an economic process/phenomenon to be anti-resilient, performative acceptant, regionally or globally significant and full replicable.

The next step is to analyze the sufficiency predicates for Sustainable Development from the point of view of their:

- Completeness
- Independence
- Consistency

#### **Completeness analysis**

The property Anti-Resilience -AR describes the ability of the status parameter of a phenomenon/process/system to undergo structural changes (qualitative leaps) based on quantitative accumulations, at a certain threshold

The attribute Performative Acceptability-PA reflects that value reached by the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

The attribute of Non-Localization NL informs that. changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/process contemplated)

The property of Full Replicability-FR has the meaning of a full replicability of a phenomenon/process under the non-localization condition

The sum of this sufficiency attributes completely defines the concept of Sustainable Development

#### **Independence analysis**

AR does not involve PA and vice versa: the ability of a phenomenon/process/system status parameter to undergo structural changes based on quantitative accumulations at a certain threshold does not include that the value reached by the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

AR does not involve NL and vice versa: the ability of the status parameter of a phenomenon/process/system to undergo structural changes (qualitative leaps) based on quantitative accumulations, at a certain threshold does not include that. changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

AR does not involve FR and vice versa the ability of the status parameter of a phenomenon/process/system to undergo structural changes (qualitative leaps) based on quantitative accumulations, at a certain threshold does not include that the system it has the ability to fully replicate under the non-localization condition

PA does not involve NL and vice versa: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not implies that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up

to a regional or global level (depending on the phenomenon/ process contemplated)

PA does not involve FR and vice versa: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not implies full replicability of a phenomenon/process under the non-localization condition

The attribute of Non-Localization NL does not involve FR and vice versa: the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated) does not implies full replicability of a phenomenon/process under the non-localization condition

### **Consistency analysis**

AR is not contradictory to PA: the ability of the status parameter of a phenomenon/process/system to undergo structural changes (qualitative leaps) based on quantitative accumulations, at a certain threshold is not contradictory to the ability of the fact that value reached by the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

AR is not contradictory to NL: : the ability of the status parameter of a phenomenon/process/system to undergo structural changes (qualitative leaps) based on quantitative accumulations, at a certain threshold is not contradictory to the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

AR is not contradictory to FR: the ability of the status parameter of a phenomenon/process/system to undergo structural changes (qualitative leaps) based on quantitative accumulations, at a certain threshold is not contradictory to the fact that the system it has the ability to fully replicate under the non-localization condition

PA is not contradictory to NL: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not contradict to the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

PA is not contradictory to FR: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not contradict to the full replicability of a phenomenon/process under the non-localization condition

NL is not contradictory to FR: the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated) does not contradict to the full replicability of a phenomenon/process under the non-localization condition.

### **The concept of Sustainability**

In my attempt to define the concept of Institutional Sustainability using the

method of logical definition I consider this concept as a species of the general concept of Sustainability-S.

Therefore, I will first define the concept of Sustainability. The sufficiency predicates that describe the concept of Sustainability are:

Double Stability-DS:

Dimensional stability- The value of the status parameter should move only within a pre-accepted range

Kinematic stability- The value of the status parameter must be maintained over the pre-accepted value of time horizon

Performative Acceptability- PA

The value reached for the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

Non-Localization- NL

Changing the status parameter value is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/process contemplated)

Full Replicability-FR

Is the essential predicate of the concept and it is having the meaning of a full replicability of a phenomenon/process under the non-localization condition

From the logical point of view the concept of Sustainability may be describe as it follows:

$S=(DS)\otimes(PA)\otimes(NL)\otimes(FR)$  where  $\otimes$ - is the symbol for logical conjunction

Hence, the Sustainability is the ability of an economic process/phenomenon to be fully replicable under the non-localization condition and to have the value of its status parameter fulfilling the following requirements:

it has to be moving only within a

pre-accepted range and the parameter must be maintained over the pre-accepted value of time horizon

it is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

its variation is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

The subsequent step is to analyze the sufficiency predicates for Sustainability from the point of view of their:

Completeness

Independence

Consistency

#### a. Completeness analysis

The property Double Stability-DS describes:

Dimensional stability- The value of the status parameter should move only within a pre-accepted range

Kinematic stability- The value of the status parameter must be maintained over the pre-accepted value of time horizon

The attribute Performative Acceptability-PA reflects that value reached by the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

The attribute of Non-Localization NL informs that. changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/process contemplated)

The property of Full Replicability-FR has the meaning of a full replicability of a phenomenon/process under the non-localization condition

The sum of this sufficiency attributes completely defines the concept of Sustainability

### **b. Independence analysis**

DS does not involve PA and vice versa: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range does not involve that the value reached by the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

DS does not involve NL and vice versa: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range does not include that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

DS does not involve FR and vice versa: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range does not include that the system it has the ability to fully replicate under the non-localization condition

PA does not involve NL and vice versa: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not implies that changing the status parameter value of the phenomenon/process/system is not of local significance,

but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

PA does not involve FR and vice versa: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not implies full replicability of a phenomenon/process under the non-localization condition

The attribute of Non-Localization NL does not involve FR and vice versa: the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated) does not implies full replicability of a phenomenon/process under the non-localization condition

### **c. Consistency analysis**

DS is not contradictory to PA: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range is not contradictory to the ability of the fact that value reached by the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

DS is not contradictory to NL: : the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range is not contradictory to the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global

level (depending on the phenomenon/ process contemplated)

DS is not contradictory to FR: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range is not contradictory to the fact that the system it has the ability to fully replicate under the non-localization condition

PA is not contradictory to NL: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not contradict to the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

PA is not contradictory to FR: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not contradict to the full replicability of a phenomenon/process under the non-localization condition

NL is not contradictory to FR: the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated) does not contradict to the full replicability of a phenomenon/process under the non-localization condition.

## The concept of Institutional Sustainability

The concept of Institutional Stability-IS- as a species of the general concept of Sustainability differs from the last only by the sufficiency predicate: institutional/normative characteristic-NC-required by the norm

From the logical point of view the concept of Institutional Sustainability-IS-may be describe as it follows:

$IS=(DS)\otimes(PA)\otimes(NL)\otimes(FR) \otimes(NC)$ , where  $\otimes$  is the symbol for logical conjunction

Therefore, the Institutional Sustainability is the ability of an economic process/phenomenon, required by the norms, to be fully replicable under the non-localization condition and to have the value of its status parameter fulfilling the following requirements:

it has to be moving only within a pre-accepted range and the parameter must be maintained over the pre-accepted value of time horizon

it is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

its variation is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

The succeeding step is to analyze the sufficiency predicates for Institutional Sustainability from the point of view of their:

Completeness

Independence

Consistency

a. Completeness analysis

The property Double Stability-DS describes:

Dimensional stability- The value of the status parameter should move only within a pre-accepted range

Kinematic stability- The value of the status parameter must be maintained over the pre-accepted value of time horizon

The attribute Performative Acceptability-PA reflects that value reached by the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

The attribute of Non-Localization NL informs that. changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

The property of Full Replicability-FR has the meaning of a full replicability of a phenomenon/process under the non-localization condition

The property of Normative Characteristic-NC has the meaning that the phenomenon/ process/system is required by the norms

The sum of this sufficiency attributes completely defines the concept of Institutional Sustainability.

Independence analysis

DS does not involve PA and vice versa: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range does not involve that the value reached by the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

DS does not involve NL and vice versa: the ability of a phenomenon/process/

system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range does not include that. changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

DS does not involve FR and vice versa: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range does not include that the system it has the ability to fully replicate under the non-localization condition

DS does not involve NC and vice versa: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range does not include that the phenomenon/process/system has normative character

PA does not involve NL and vice versa: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not implies that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

PA does not involve FR and vice versa: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum)



but a value that reasonably meets the expectations does not implies full replicability of a phenomenon/process under the non-localization condition

PA does not involve NC and vice versa: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not implies that the phenomenon/process/system has normative character

The attribute of Non-Localization NL does not involve FR and vice versa: the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated) does not implies full replicability of a phenomenon/process under the non-localization condition

The attribute of Non-Localization NL does not involve NC and vice versa: the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated) does not implies that the phenomenon/process/system has normative character

The property of Full Replicability-FR does not involve NC: the full replicability of a phenomenon/process under the non-localization condition does not implies that the phenomenon/process/system has normative character

### c. Consistency analysis

DS is not contradictory to PA: the ability of a phenomenon/process/system status parameter to have its value maintained over

the pre-accepted value of time horizon and moving only within a pre-accepted range is not contradictory to the ability of the fact that value reached by the status parameter is not an extreme (minimum or maximum) but a value that reasonably meets the expectations

DS is not contradictory to NL: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range is not contradictory to the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

DS is not contradictory to FR: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range is not contradictory to the fact that the system it has the ability to fully replicate under the non-localization condition

DS does not contradict NC and vice versa: the ability of a phenomenon/process/system status parameter to have its value maintained over the pre-accepted value of time horizon and moving only within a pre-accepted range does not contradict that the phenomenon/process/system has normative character

PA is not contradictory to NL: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not contradict to the fact that changing the status parameter value of the phenomenon/

process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated)

PA is not contradictory to FR: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not contradict to the full replicability of a phenomenon/process under the non-localization condition

PA does not contradict NC and vice versa: the fact that value reached by the status parameter of a phenomenon/process/system is not an extreme (minimum or maximum) but a value that reasonably meets the expectations does not contradict that the phenomenon/process/system has normative character

NL is not contradictory to FR: the fact that changing the status parameter value of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated) does not contradict to the full replicability of a phenomenon/process under the non-localization condition.

The attribute of Non-Localization NL does not contradict NC and vice versa: the fact that changing the status parameter value

of the phenomenon/process/system is not of local significance, but it has entanglement valences, possibly up to a regional or global level (depending on the phenomenon/ process contemplated) does not contradict that the phenomenon/process/system has normative character

The property of Full Replicability-FR does not contradict NC: the full replicability of a phenomenon/process under the non-localization condition does not contradict that the phenomenon/process/system has normative character

### Conclusions

The main conclusions of this paper are:

The paper aims and succeeds to clearly define concepts of Sustainable Development, Sustainability and Institutional Sustainability using the method of logical definition. In doing so the paper is useful for all the researchers that aim to study the field of Sustainability and Sustainable Development.

The Sustainability is the general concept and Institutional Sustainability is the species.

The comparison between the concepts of Sustainable Development, Sustainability and Institutional Sustainability, based on their sufficiency predicates is presented in the table below:

Table 1. Comparison of the concepts of Sustainable Development, Sustainability and Institutional Sustainability

Concept	Sufficiency Attributes					
	Anti-Resilience	Non-Localization	Performative Acceptability	Full Replicability	Double Stability	Normative Characteristic
Sustainable Development						
Sustainability						
Institutional Sustainability						

Source: Author

4. Analysing the previous table, we may conclude that:

a. The concept of Sustainable Development differs from the concept of Sustainability because it has the property of Anti-Resilience and has not the attribute of Double Stability

b. The concept of Institutional Sustainability differs from Sustainable Development because it has Normative Characteristic and Double Stability but lacks the attribute of Anti-Resilience

c. The concept of Institutional Stability differs from Sustainability through Normative Characteristic predicate.

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