

# Public Governance and Management as per Human Resource, Accountability and Environment According to Composite Supportive Progress (CASP)

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Received: August 18, 2016; Accepted: August 30, 2016; Published: September 13, 2016

## **Keywords**

Public Governance & Management (PGM), Human Resource Management (HROM), Public Accountable Governance (PAG), Global Environmental Change (GEC), Bio-diverse Sustainable Development (BSD), Composite Progressive Indicators (CPI)

**S** ustainable Development is an innovative concept symbolized as Composite Appraising Supportive Progress (CASP). Biodiversity concept is an extra key topic having huge influence on public governance and management. Procedures designing composite progressive indicators manage actions with defined methodology. Dutch categories are prescribed as per Ministerial, Statistic and Geographic implementations. The resulting sequence is represented as: Genes, Society (S), Human Resource Organization and Management (HROM); Species, Economy (E), Public Accountable Governance (PAG); Ecosystems, Nature (N), Global Environmental Change (GEC); Functions, CASP, Public Governance and Management (PGM). The current paper is a proposal to organize Dutch CASP within biodiversity concept. Composite Progressive Indicators (CPI) are proceeded for methodologies, results, actualization and discussions on three (3) magnitudes of Dutch CASP. Dutch CASP categories are applied through Dutch statistic themes; associated with existing governmental ministries of the Netherlands; allocated in 12 Dutch provinces; distributed in four (4) Utrecht University positions within the biodiversity concept; categorized as per themes according to departmental announcements; executed equivalence of subjectivity within categories; and proposed the model through the combination of eighteen (18) categories of CASP. Further deeper research is required to aptly assess biodiversity concept within Dutch CASP.

# Introduction

Papers of [1-3] expose the widespread researches accentuating on three (3) ways of Sustainable Development (SD) portrayals and as a modern issue with four (4) magnitudes of SD, CASP and Biodiversity Concept in Table 1.

No	SD magnitudes	<b>Biodiversity Concept</b>	Management	Ways	References
α.	Society (S)	Genes	Human Resource Organization & Management(HROM)	Directional Triangle	Holistic Illustration [4]
β.	Economy (E)	Species	Public Accountable Governance (PAG)	Economy Centered	Russian Dolls Model [5]
γ.	Environment (N)	Ecosystem	Global Environmental Change (GEC)	Intersectional Platforms	Primary Concept of SD [6]
δ.	Sustainability	Functions	Public Governance & Management (PGM)	Complete Performance	ACASP [1, 7-10]

Table 1. Depictions of SD, ACASP, Management and Biodiversity Concept.

# **Literature Review**

Although sustainability has never been appropriately established, Composite Appraising Supportive Progress (CASP) is a new index to appraise Combined Sustainable Development Index (CSDI). Petrosyan's book in [1] has compatibility of with the paper of Petrosyan in [2] refer to Figure 1, which portrays the combination of 3 magnitudes, i.e., society, economy and nature, with the choice of six (6) categories per each magnitude.



Figure 1. Projected Expressions of CASP through Magnitudes, Categories & Indicators.

The purpose of this paper is to interrelate biodiversity concept with Dutch Composite Appraising Supportive Progress (DCASP). The significance is based on further development of apt assessment for Dutch CASP.

# **Materials and Methods**

**Study Area** 



*Figure 2. Provinces of the Netherlands.* 

The Netherlands is divided into twelve (12) provinces in Figure 2 [11]. The Netherlands is a small, densely populated country located in Western Europe with three (3) island-territories in the Caribbean. The European part of the Netherlands borders with Belgium, the United Kingdom and Germany. Sustainability is an important concept for the Dutch community.

## Data Sets

Data sets are retrieved from Dutch Provinces applicable to distributive CASP in Figure 2 and Table 2. Dutch categories are retrieved from themes of Dutch statistics [12].

	Catagorias		-	-
N.	Dutch	CASP	— Ministries	Areas
Society	/	Children		
S1	Health & Welfare Population	Humans	Ministry of Health, Welfare and Sport	Drenthe
S2	Labour& Social Security	Society Concerns	Ministry of Social Affairs and Employment	Flevoland
S3	Education Culture	Knowledge in Practice	Ministry of Education, Culture and Science	Friesland
S4	Regional Statistics	Space Science	Ministry of Defense	Gelderland
S5	Government & Politics	Political Performance	Dutch Senate, Ministry of General Affairs	Groningen
S6	Traffic & Transport	Transport	Ministry of Infrastructure and the Environment	Limburg
Econor	ny			
E1	Financial & Business Services	Investment	Ministry of Finance	North Brabant
E2	Security & Justice International Trade	Human Standards	Ministry of Security and Justice	North Holland
E3	Income & Spending Prices	Production & Consumption	Ministry of the Interior and Kingdom Relations	Overijssel
E4	Agriculture	Agriculture	Ministry of Agriculture, Nature and Food Quality	South Holland
E5	Construction - Housing Enterprises	Industry	Ministry of Economic Affairs	Utrecht
	Macro-Economics			
E6 Nature	Trade, Hotels & Restaurants	Tourism	Ministry of Foreign Affairs	Zeeland
N1	Land	Land		Friesland
N2	Water	Water		Gelderland
N3	Air	Air	Ministry of Infrastructure and the Environment	North Brabant
N4	Biodiversity	Biodiversity	winnsity of infrastructure and the Environment	Utrecht
N5	Manufacturing - Energy	Energy		Overijssel
N6	Nature & Environment	Eco Resources		South Holland

Table 2. Categories of Dutch-CASP.

## Methodology

Nine (9) steps of [10] paper can be represented for Composite Progressive Indicators (CPI) as in Table 3:

Table 3. Nine	(9) ste	eps for	Composite	Progressive	Indicators	(CPI).
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Num	Nine (9) Steps	Ways
(1)	Aspects	Choice of Themes
(2)	Aims	Reason for Choice
(3)	Criteria	Means for Reason
(4)	Principles	Values for Means
(5)	Processes	Procedure as per Values
(6)	Framework	Structure as per Procedure
(7)	Top-down and bottom-up approaches	Implementation as per Structure
(8)	Pressure-state-response (PSR) frameworks	Reaction as per Implementation
(9)	Composite Progressive Indicators	Improvement as per Reaction

Source: [7-10]

Despite [13] views methodologies and applications on sustainability assessment of development scenarios, the current paper follows the next structures:

- Correspondence of Dutch CASP categories with applied themes in Dutch statistics of [12];
- Association of existing governmental ministries of the Netherlands with CASP categories;
- Allocation of 12 Dutch provinces within 18 branches of CASP;

- Four (4) positional distributions of Utrecht University within the biodiversity concept of CASP;
- Themes categorization as per departmental announcements;
- Equivalence of subjectivity implementation within categories;
- · Model proposal combined within CASP.

# Results

# Human Resource Organization and Management (HROM)

The results of Human Resources have the following order represented in Table 4.

Table 4. Correspondence of	f Society (S) with Human	Resources for defined CASP.

N.	Categories							
	CASP	Human Resources						
S1	Humans	Systems	Strategy	Business Initiatives				
S2	Society Concerns	Performance Indicators	Practices	System Designs				
S3	Education	Assessment Stage	Results	Skills with Motivations				
S4	Space Science	Research Type	Behavior	Productivity with Creativity				
S5	Political Performance	Measurement in Survey Research	Performance Results	Improved Operating Performance				
S6	Transport	Optimal Research Control	Financial Results	Profits & Growth				
S	Society	Stability factors	Applications	Market Value				

# **Public Accountable Governance (PAG)**

The results of Accountability have the following order represented in Table 5.

<b>Table 5.</b> Correspondence of Economy (E) with Accountability for defined	l CASP.
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N.	Categories				
	CASP	Accountability			
E1	Investment	Persons			
E2	Human Standards	Obligations			
E3	Production & Consumption	Data or Information Provisions			
E4	Agriculture	Norms			
E5	Industry	Requests			
E6	Tourism	Formal Sanctions			
Е	Economy	Actual Effects			

## **Global Environmental Change (GEC)**

The results of Environment have the following order represented in Table 6. Even though all the techniques in Table 6 can be used in any of themes for Nature magnitude, categorization is performed for each branch of CASP.

	Categories					
N.	CASD	Environment				
	CASI	Tools	Research			
N1	Land	Economic Valuation	Global Change			
N2	Water	Geographic Information Systems	Environmental Science			
N3	Air	Remote Sensing	Sustainable Development			
N4	Biodiversity	Information and Communication Technology (ICT)	Biodiversity Implication			
N5	Energy	Statistical Programs	Policy Oriented Research			
N6	Eco-Resources	Decision Making	Ecosystem			
Ν	Nature	Modelling using aforementioned techniques	Integrated Assessment Modelling (IAM)			

 Table 6. Correspondence of Nature (N) with Environment for defined CASP.

#### **Public Governance and Management (PGM)**

Although the main emphasis for Public Governance and Management (PGM) is on Political Science, however, surveying engineer with backgrounds of computer science, industrial engineer and environmental management can tackle with governance and management in terms of publicity. Main importance is an apt platform creation with educational - industrial-organizational governance. Sustenance of rules are obligatory for each province. Beneficiary points should be kept to proceed apt management. Each province is specific as per its geographic locations, history and development procedures. Governmental willingness to lead scientific research is another key. Apt use of young, middle and old generation should be applied to PGM. Decision making with multi-criteria objectives for solving the PGM problems is an important key for the scientists for the development of each area. Quality and Outcomes Framework (QOF) is imperative for PGM where groups of afore-cited themes should not only be defined suitably but also checked practically.

Although, there are always exceptions where the critique goes to "these tendencies should not be seen as (a) self-interested attempts to become autonomous managers". If the professional understands the whole concept, then the aforementioned point (a) must comply even though it can be the tiny percentage of the succession. Scientific knowledge is the main key to lead the world. Constructions of models are really required with future practical involvements.

## Actualization

#### Human Resource Organization and Management (HROM)

Actualization of Human Resources has the following order represented in Table 7.

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Table 7. Actualization of Human Resources for defined CASP.
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N.	Biodiversity	Ways	Human Resources
α.	Genes	Perception	Coercive
β.	Species	Objectives	Strategic
γ.	Ecosystems	Performance	Mimetic

#### **Public Accountable Governance (PAG)**

Actualization of Accountability has the following order represented in Table 8.

Table	8.	Actual	ization	of	Accountabili	tv	for	defined	CASP.
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N.	Biodiversity	Ways
α.	Genes	Information
β.	Species	Discussion
γ.	Ecosystems	Consequences

## **Global Environmental Change (GEC)**

Actualization of Environment has the following order represented in Table 9.

Table 9. Actualization of Environment for defined CASP.

N.	Biodiversity	State Estimations of Ecosystems
α.	Genes	Geographic Information Systems (GIS)
β.	Species	Information and Communication Technology (ICT)
γ.	Ecosystems	Economic Valuations

#### **Public Governance and Management (PGM)**

Actualization of Public Governance and Management (PGM) has the following order represented in Table 10.

Table 10. Actualization of Public Governance and Management (PGM) for defined CASP.

N.	Biodiversity	Ways	Human Resources
α.	Genes	Purified	Professional Managers
β.	Species	Situated	Nature of Professional Work
γ.	Ecosystems	Hybridized	Appropriate Professional Capital

# Discussions

[7] provides a management process of three (3) types of Recommendation 1 to construct Society (S) in Figure 3, Economy (E) in Figure 4 and Environment (N) in Figure 5 with emphasis on Biodiversity Concept. Two (2) & five (5) categories of each magnitude as for species stages have control over one (1) & four (4) categories of each magnitude as for gene stages and three (3) & six (6) categories of each magnitude as for ecosystem stages.



Source: [7]

Figure 3. Recommendation for Society (S).



Source: [7] Figure 4. Recommendation for Economy (E).



Figure 5. Recommendation for Environment (N).

[7] further illustrates the final view of smart development as per University (U) - Industry (I) - Organization (O) which is depicted in Figure 6 as per biodiversity concept for Genes - Society (S), Species - Economy (E), Ecosystems Environment (N) and Functions - CASP Magnitudes.



Figure 6. Final view of UIO as SEN Magnitudes for CASP.

## Conclusion

The current paper views biodiversity concept management as Functions - Public Governance and Management (PGM) - CASP for Genes - Human Resource Organization and Management (HROM) - Society (S); Species - Public Accountable Governance (PAG) - Economy (E) and Ecosystems - Global Environmental Change (GEC) - Environment (N). Proper reorganization and deep assessments are required to proceed Dutch Public Governance and Management (PGM) towards CASP.  $\blacksquare$ 

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# References

- Petrosyan Azniv (2014), Appraising Biodiversity in Supportive Progress Using GIS Means, LAP LAMBERT, Academic Publishing Company in Saarbrucken, Germany, ISBN: 978-3-659-34415-2, 668 pp.
- [2] Petrosyan, A. F., (2010). A Model for Incorporated Measurement of Sustainable Development Comprising Remote Sensing Data and Using the Concept of Biodiversity. Journal of Sustainable Development 3 (2): 9-26.
- [3] Petrosyan, A. F., (2005). *Economic valuation of biodiversity loss: the case of Mediterranean forest*. Participation on the sixth meeting of the "Développementd" Actions pour le Marketing et al Gestion post-évènements"- DAMAGE. Athens, Greece, October.
- [4] Lyytimaki, J., Rosenstrom, U., (2008). Skeletons out of the closet: effectiveness of conceptual frameworks for communicating sustainable development indicators. Sustainable Development 16 (5): 301-313.
- [5] Levett, R., (1998). *Sustainability indicators—integrating quality of life and environmental protection*. Journal of the Royal Statistical Society: Series A (Statistics in Society) 161 (3): 291-302.
- [6] Walton JS, El-Haram M, Castillo NH, Horner RMW, Price ADF, Hardcastle C., (2005). *Integrated assessment of urban sustainability*. Engineering Sustainability 158 (2): 57–65.
- [7] Azniv Felix Petrosyan, (2015a). PhD, "Smart Development Through Biodiversity Concept in Armenian Composite Appraising Supportive Progress (ACASP)", International Journal of Business and Industrial Marketing, American Association for Science and Technology (AASCIT); 1 (4): 64-77, Published online 30.08.2015, (http://www.aascit.org/journal/ijbim)
- [8] Azniv F. Petrosyan, (2015b). PhD, "Indicative Review Through Biodiversity Concept in Construction of Composite Appraising Supportive Progress (CASP) of Armenia", American Journal of Environmental Policy and Management, American Association for Science and Tech (AASCIT); 1 (4): 57-66, Published online 30.08.2015; (http://www.aascit.org/journal/ajepm)
- [9] Azniv Felix Petrosyan, (2015c). PhD, "Approximation of Indicators in Society Magnitude as per Armenian Composite Appraising Supportive Progress (ACASP)", International Journal of Investment Management and Financial Innovations, American Association for Science & Tech (AASCIT); 1 (4): 77-88; Published online 30.08.2015 (http://www.aascit.org/journal/ijimfi)
- [10] Azniv Petrosyan, (2015d). PhD, "Procedures Designing Composite Progressive Indicators", International Journal of Econometrics and Financial Management, Science and Education Publishing 3 (2): 104-109. http://pubs.sciepub.com/ijefm/3/2/8/



- [11] Wikipedia (2016). *The Netherlands*. From Wikipedia, the free encyclopedia. Website available at: https://en.wikipedia.org/wiki/Netherlands
- [12] Statweb (2016). Statistics of the Netherlands. Online statistic data. Website available at: http://statline.cbs.nl/Statweb/
- [13] Nijkamp, P., Vreeker, R., (2000). Sustainability assessment of development scenarios: methodology and application to Thailand. Ecological Economics 33 (1): 7-27.