

# THE SUSTAINABILITY MARKER TO SUPPORT THE PROJECT SELECTION PROCESS: THE UNOPS CASE

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### **Abstract**

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The objective of this paper is to present a non conventional approach that is being currently implemented at the United Nations Office for Project Services (UNOPS), when selecting new projects globally, in order to include, as project selection criteria, social, environmental and economic sustainability aspects in humanitarian and development projects.

Using a set of twenty five themes in four major groups, an internal tool called Sustainability Marker was developed to analyse projects above and beyond the traditional financial criteria in order to evaluate the real impact of the project to the sustainable development goals.

### **Traditional Project Evaluation Criteria**

When looking into how organizations decide over which projects to execute, we can notice a constant desire to have clear, objective and mathematical criteria (HAAS & MEIXNER, 2005). However, decision making is, in its totality, a cognitive and mental process derived from the most possible adequate selection based on tangible and intangible criteria (SAATY, 2009), which are arbitrarily chosen by those who make the decisions.

Basically, the prioritization of projects in a portfolio is nothing more than an a sequencing scheme based on a benefit cost relationship for each project. Projects with higher benefits, when compared to their costs, will have a higher priority. It's important to observe that a benefit cost relationship does not necessarily mean the use of exclusive financial criteria like the widely known benefit cost ratio, but instead a broader concept of the reaped benefits from executing the project and their related efforts (VARGAS, 2010).

In most enterprises, the main criteria groups are related to financial, strategic, 'See Catalog of Catastrophe risks, urgency and stakeholder commitment aspects (VARGAS, 2010). The main challenge is to put in place criteria that can capture outcomes instead of just basic outputs. Many real cases support the lack of understanding of the real expected outcomes, where projects were delivered to time, cost and quality objectives and yet are not yielding positive results (DUGAL, 2010). Project managers have constructed bridges without access roads, have built hospitals and courthouses which are empty later on, have implemented ERP systems and other business changes that have destroyed organizations<sup>1</sup>.

PMI's Standard for Portfolio Management (PMI, 2012) mentions that the scope of a project portfolio must stem from the strategic objectives of the organization. These objectives must be aligned with the business scenario which in turn may be different for each organization. Consequently, there is no perfect model that covers the right criteria to be used for any type of organization when prioritizing and selecting its projects. The criteria to be used by the organization should be based on the values and preferences of its decision makers.

## **UNOPS Sustainability Criteria**

With a strong focus on the developing world, United Nations Office for Project Services (UNOPS) states that a project can only be considered sustainable if it address the impacts on a broader set of stakeholders, including generations not yet born (BOBROW, 2014). This comprises sustainability aspects that should be embedded into the project while executing it (How) and the sustainability aspects after its conclusion (Aim).

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AIM	HOW		
Projects and programmes comply to strict criteria concerning environmental and social scope and planned results before they are initiated.	UNOPS teams embed cross-cutting initiatives, such as how to get the best community support, into their project planning and implementation phases.		

Exhibit 1 – UNOPS definition of a sustainable project

Insert sustainable principles into every single project is a major task and sometimes the decision on what actions should be in place create a dilemma for the project manager and the project team. In the locations where UNOPS operates, funding is often too limited to address all of the basic needs. Let's take the example of building a school. There can be enough funding to put solar panels on the roof or to build more class room space but not both. If we put the panels on then the school can have electricity and provide space for computers and potentially evening classes. However, if instead the classroom is made larger, more children can attend. How should a project manager make such a decision? (BOBROW, 2014).

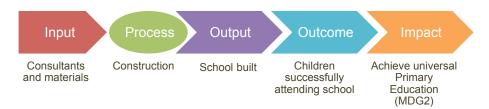


Exhibit 2 - Example of transforming Inputs in to outputs, outcomes and impact in the development sector (UNOPS, 2014)

In order to support informed decision making process, four categories of sustainability were identified based on the Aspire Model with some adaptation to the development context:

- Social It covers aspects such as gender, population, vulnerability and other aspects related to the community where the project is being implemented.
- **Environmental** It covers aspects such as air, land, water and biodiversity where the project is being implemented.
- **Economic** It covers aspects such as the economic relevance for the community, job generation, equity and livelihood.
- National Capacity It covers aspects such as the use of local capacity to deploy the project including skills and knowledge, corruption, political and social stability.

# 25 Themes of the Sustainability Marker

After discussions with partners, project managers and experts in the field, the 20 themes within the ASPIRE model were adapted and augmented into the 25 themes now represented in the UNOPS Sustainability Marker (Exhibits 3, 4, 5 and 6).

	THEMES	#	QUESTIONS	CONSIDERATIONS
	Populations	1	What is the likely effect of the project on local communities?	Population change Community cohesion Conflict sensitivity Displacement Population density affecting environmental sustainability Population movement and traffic
	Cultures	2	What is the likely effect of the project in terms of community culture and identity?	Socio-cultural identity Cultural and religious facilities Main stakeholder's heritage and archaeology Use of environment Intergenerational practices
SOCIAL	Services	3	What is the likely effect of the project on access to essential services?	Energy Mobility & transport Road construction Telecommunications Education Communal space Crime, Security, Police, Fire and Ambulance services
SO	Health	4	What is the likely effect of the project in relation to the public health infrastructure and services?	Sanitation Solid waste Drainage Healthcare Shelter Nutrition HIV/AIDS and other communicable diseases
	Vulnerability	5	What is the likely effect of the project on community institutions and social networks?	Community cohesion Vulnerable groups Indigenous groups Minority groups People with disabilities
	Resilience	6	What is the likely effect of the project in terms of resilience of communities to shocks, stresses and hazards?	Ability to resist and recover in a timely and efficient manner Physical infrastructure Livelihood diversification Access to finance and insurance
	Gender	7	What is the likely effect of the project on gender equality or female empowerment?	Differential effect on men and women Access for women

**Exhibit 3** – Social themes

	THEMES	#	QUESTIONS	CONSIDERATIONS
	Viability	17	What will be the likely effect on the project after external funding and UNOPS involvement are withdrawn?	Value for money Risk management Carbon pricing Operation and maintenance Alignment with national/regional strategies Appropriate technologies Functionality for the full planned life span
ECONOMIC	Macro	18	What is the likely effect of the project on the vitality of the local economy?	Vitality and regeneration Value added/multiplier effects Debt Inflation effects Ethical competition
ECO	Livelihoods	19	What is the likely effect of the project on employment and livelihood opportunities of the project-affected communities?	Local sourcing Access to finance Distortions to local economy Employment creation Labor standards Training
	Equity	20	Will the benefits of the project be equally accessible to all members of society? If yes, indicate a positive effect. If no, indicate a negative effect.	Equal opportunities Affordability of services Debt Land tenure Communication about the project

Exhibit 4 – Economic themes

# ENVIRONMENTAL

THEMES	#	QUESTIONS	CONSIDERATIONS
Air	8	What is the likely effect of the project on local air quality?	Ambient air quality Direct emissions Dust and particulates Ozone depleters
Land	9	What is the likely significant effect of the project on land resources and land usage?	Site location Planning intent Diversity/mixed use Contaminated land Soil conservation"
Water	10	What is the likely effect on surface, groundwater or coastal waters?	Drainage systems Water pollution Sewage treatment and disposal Water availability Water efficiency "
Biodiversity	11	What is the likely effect of the project on natural ecosystems?	Protected areas Nature conservation Ecosystems Environmental risk management
Energy	12	What is the likely effect on shared / municipal energy supplies?	Energy efficiency
Materials - Lifecycle	13	What is the likely effect on the ecosystems and communities from the materials used throughout the life of the project or asset?	Whole life analysis Local sourced materials Recyclability
Materials - Waste	14	What is the likely effect of project 'waste' on the ecosystems and communities?	Shared / municipal waste disposal facilities Volume of solid waste Toxic or hazardous waste
Global Climate	15	What is the likely effect of the project on greenhouse gas emissions?	Net reduction or net increase in greenhouse gas emissions
Disaster Risk Reduction	16	What is the likely effect of the project on the risk environment?	Reduction or increase in risk posed by floods, droughts, landslides, due to construction

Exhibit 5 – Environmental themes

	THEMES	#	QUESTIONS	CONSIDERATIONS
	Structures - Institutions	21	What is the likely effect of the project on institutional civil structures?	National/local government effectiveness Effective delivery of services Capacity to run/ maintain the project/ services after handover? Project - Government coordination
ACITY	Structures - Corruption	22	Will this project have effect on corruption within institutions (private sector / government / civil society)?	Corruption Civil society Rule of law
NATIONAL CAPACITY	Skills & Capacity Development	23	What is the likely effect of the project on the skills and capacity of local / national private sector / government / civil society to undertake similar projects in the future?	Research and innovation Local supply chains Information disclosure and reporting Monitoring and evaluation Media channels Knowledge exchange
Z	Political	24	What is the likely effect of the project on political stability or security?	Stability of national governments Effect on areas of conflict Political ramifications
	Policies	25	What is the likely effect of the project in terms of alignment with local policy and regulatory frameworks or international as appropriate?	Regulatory quality Human rights Health and safety Quality assurance Intellectual property rights

Exhibit 6 – National Capacity themes

# **Evaluating the Sustainability Themes**

UNOPS project life cycle follows a five stage process (UNOPS, 2014) as presented in the Exhibit 7.

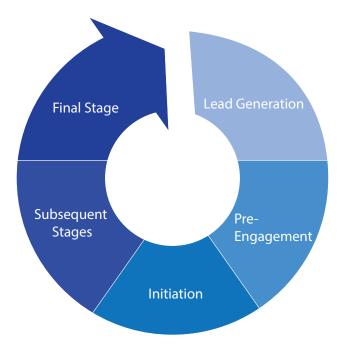


Exhibit 7 – UNOPS Engagement Process (UNOPS, 2014)

The Engagement process steps follow a progressive development where more effort is put in place during the initial phases, in order to collaborate with the project's key stakeholders to adjust the plans and outputs to address the relevant sustainability aspects. This approach follows the concept that the capability to add value decreases and the cost of correction increases exponentially over time for an given project (VARGAS, 2014).

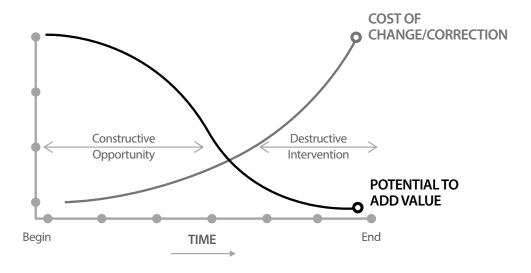


Exhibit 8 – Potential to add value again the cost of correction for an specific project (VARGAS, 2014)

On the Lead Generation phase, a bigger effort is put into place to work with the key stakeholders on the relevance of each sustainability aspect.

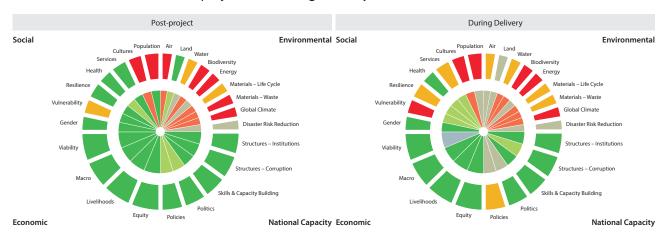
During this stage, training, discussion forums and informal assessments are put in place to create the positive environment for the Pre-Engagement phase assessment.

On the Pre-Engagement phase, the team needs to assess the twenty five themes for the project delivery (effects during project delivery) and for the post-project (effects after the outcome has been delivered). The effect-based scale is presented on the Exhibit 9.



**Exhibit 9** – Effect based scale on the Pre-Engagement Phase (during and after project delivery)

After consolidating the information, the marker chart is presented for both Post-project and During Delivery scenarios (Exhibit 10).



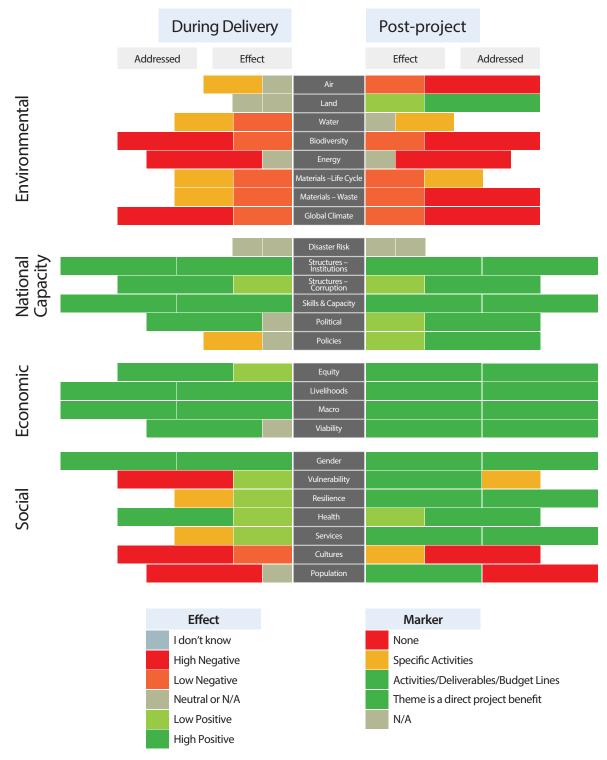
**Exhibit 10** – Example of Sustainability Marker Wheel Graph during the Pre-Engagement phase

After the Pre-engagement phase, the project team will work with the stakeholders to address any relevant sustainability aspects through direct actions in the project delivery or changes to the scope statement and scope definition (PMI, 2013a) to include specific activities, potential budget lines or a direct benefit of the project, if applicable (Exhibit 11).



Exhibit 11 - Action plan scale on the Initiation Phase

The final result depicts an expected improvement to the sustainability aspects to be delivered by the project by the implemented actions, like it is presented in the Exhibit 12.



**Exhibit 12** – Example of Sustainability Marker Bar Graph during the Initiation Phase (Including Action Plans)

## **Conclusions**

This paper aimed to present and discuss the selection criteria implemented by UNOPS to address social, environmental and economic sustainability in human-

itarian and development projects by using twenty five themes grouped in four dimensions for the project execution and post-project results.

The UNOPS Sustainability Marker is currently on pilot in most of the 1,300 UNOPS projects globally. Challenges related to different cultural aspects, resistance to change and short term need x long term perspective have been addressed and incorporated on each new release of the tool.

### References

ASPIRE Version 1.3 (2013). Arup International Development. Available at http:// www.oasys-software.com/products/environmental/aspire.html. Email: aspire@ arup.com

BOBROW, H. (2014). Taking Responsibility for Project Success: Sustainability and the Project Process. Dubai: PMI Global Congress EMEA.

DUGGAL, J.S. (2010). Next Level Up: How Do You Measure Project Success? Rethinking the Triple Constraint. Retrieved on 1st August 2014 from http://www.pmi.org/ Knowledge-Center/Next-Level-Up-How-Do-You-Measure-Project-Success.aspx

HAAS, R. & MEIXNER, O. (2005). An Illustrated Guide To Analytic Hierarchy Process. Vienna: University of Natural Resources and Applied Life Sciences.

PMI (2013a). The Project Management Body of Knowledge: Fifth Edition. Newtown Square: Project Management Institute.

PMI (2013b). The Standard for Portfolio Management: Third Edition. Newtown Square: Project Management Institute.

SAATY, T. L. (2009). Extending the Measurement of Tangibles to Intangibles. International Journal of Information Technology & Decision Making, Vol. 8, No. 1, pp. 7-27, 2009. Available at SSRN: http://ssrn.com/abstract=1483438.

UNOPS (2014). Body of Knowledge Sustainable Project Management Practice: Twelfth Edition. Copenhagen: UNOPS.

VARGAS, R. V. (2010). Using the Analytic Hierarchy Process (AHP) to Select and Prioritize Projects in a Portfolio. Washington/DC: PMI Global Congress North America.

VARGAS, R. V. (2014). Gerenciamento de Projetos - Estabelecendo Diferenciais Competitivos: Oitava Edição. Rio de Janeiro: Brasport (Brazilian Portuguese).