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SUSTAINABLE CONSTRUCTION CULTURE: AN ANALYSIS OF CIVIL AND STATE PARTNERSHIP IN MEGA DEVELOPMENT PROJECTS

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ABSTRACT

Rapid economic growth in Sri Lanka is demanding ever increasing need for sustainable solutions for social stability. After declaring the 2030 Agenda (Sustainable Development Goals) by the UNDP, state administered engineering interventions in Mega Development Projects tend to have a considerable concern on equilibrium among economic, environmental and social dimensions. Sustainability of construction is more often depended on its acceptance by the people who are supposed to utilize the construction. If engineered constructions are unsuccessful to address the expectations of people, there will be some sever consequences on sustainability. The objective of this study is to investigate the problems of state administered development projects with special reference to social sustainability and civil-state partnership. Uma Oya Multi-purpose Development Project (UMDP) was selected as the Main Case to be studied. Collected data thus were analyzed using thematic analysis. Results show that some of the critical decisions assumed before the construction, became fallacious with catastrophic situations during the construction phase. And it's identified that when the construction is going on, needs of some particular communities are compromised. Although the project is administered by a complex state intervened management, local level administrative authorities have no power so as to monitor the construction activities by conserving the expectations of communities. However, social constituent of the sustainable construction is of vital importance, and there can be many contradictions between material aspect and peoples' expectations of the project conducive to a Sustainable Built Environment.

KEYWORDS: *Community expectations, Management, Policy Gaps, Social Stability, State Administered Constructions*

1. INTRODUCTION

Enhancing people's well-being is the ultimate goal, regardless of various definitions used to understand the concept of 'development'. Unless the betterment of people's life is associated with development practices, essentially it would not be considered as just and sustainable. Mainly the concept of 'development' has long been considered as a matter of economic or material growth, and major interventions were based on infrastructure development leading to social development at last. Recently, the concept of 'development' has defined innovatively with 'sustainability' paradigm so as to provide a wide and deep meaning. After introducing the 2030 Agenda or Sustainable Development Goals (SDGs), traditionally defined concept has been changed remarkably. The basic purpose of the SDGs is to implement a sustainable balance among people, planet, prosperity, peace and partnership (UNESC, 2016). Conventionally, it is believed that the main purpose of development agendas implemented by the state is to improve the infrastructure facilities by making material benefits for citizens thereby increasing their capabilities, hence always the material consequences (ends) have been given considerable importance and the ways (means) incurred neglected to a greater extent (Chambers, 1997). However, it is believed that the sustainable development paradigm in contrast to millennium development goals (MDGs) will address the issues associated with traditional approaches to development, thereby preserving environment, economic and social component of the world.

Engineered construction is a major component of infrastructure/ economic development and Sri Lanka has been undergone sophisticated infrastructure construction projects with the intention of economic growth of the country for several decades. At the beginning, interventions of the state in construction projects in Sri Lanka thought to be highly bureaucratized (Scudder, 2005). Social Justice and Environmental Preservation are substantially threatened; however, there were no any contemplation on well-being of the people in line with the human rights, even though the ultimate objective of the constructions was directed specifically towards human development.

Unlike developed countries or other Asian nations, Sri Lanka is a peasant society with a widened agricultural economy, although highly urbanized areas are at present. Since sector-differences i.e. Urban, Rural and Estate, are highly connected into the societal structure, the state interventions in highly bureaucratized construction projects did not produce equal and just benefits for all. This is not merely a specific situation only in Sri Lanka, but of the third world. Therefore, the concept of 'Development' has redefined with 'SDGs' and the main intention is to strengthen the amalgamation of environment, economy and society thereby gaining a deeper awareness of the human wellbeing.

Sri Lanka, a country with a developing economy has to think of economic growth to a greater extent than that of other societal and environmental facts. Mostly, the state interventions in development projects have addressed economic or infrastructural matters and thought that trickle down may establish a kind of welfare for the needy people conducive to the social development in Sri Lanka. Once the MDGs (Millennium Development Goals) are introduced, a multi-disciplinary approach was employed when development policies are formulated, in spite of having a considerable gap between community engagement and engineering interventions. Engineering component or engineers' involvement in the construction projects is still considered highly important over the societal engagement and expectations due to its so called scientific rigor(Scudder, 1993).

Human Wellbeing (physical, psychological and social stability of the people) is the major expectation of development paradigm, although the engineers' intervention in macro level construction projects has been essentially stressed. Therefore, Engineers' intervention is also an important aspect of development projects in Sri Lanka, since it has a considerable influence on the project's life cycle. Intervention of the state in development or construction projects is usually managed by engineers' intelligentsia whereas the public bureaucrats' involvement is less. Probably beneficiaries and victims are not involved in any stage in development projects, even though they are identified and referenced as beneficiaries or victims by the proposals (Escobar, 2005). On the other hand, in construction based development projects, engineers' intelligentsia is considered to be the major stakeholder group who is supposed to involve in construction activities of the project, and by giving little attention to many of the societal conditions.

2. OBJECTIVE

Therefore, the objective of this study is to investigate the problems of state administered development projects with special reference to social sustainability and civil-state partnership. "Uma Oya Multi-Purpose Development Project" (UMDP) was considered as the primary case of study.

3. SUSTAINABILITY, SGDS AND CONSTRUCTION PARADIGM

The sustainability of a development project is more often considered to be a consequence of philosophically justified human engagement. Some argue that sustainability of the development must be realized as a material output (Harvey, 2007), but philosophically justified

human engagement in the process of development is of vital importance. "A theory however elegant and economical must be rejected or revised if it is untrue; likewise laws and institutions no matter how efficient and well-arranged must be reformed or abolished if they are unjust. Each person possesses an inviolability founded on justice that even the welfare of society as a whole cannot override" (Rawls, 1971). Justice (fairness of the resource and results distribution) of the development process and of the consequences (ends) must be implemented, so that the innovative dialogue of sustainability tries to associate the concept of 'justice' with the development discourse. However, sustainability may be threatened or endangered due to anti-sustainable practices (consciously or unconsciously) of human beings. By nature large scale Development constructions are administered by a particular group of people for the sake of another group. Because of the different dispositions of the groups engaged in development process may instigate an imbalance of decision making power each other, and will be resulted in imbalance among environment, society and economy as well.

"Sustainable Development is a process of change in which the exploitation of resources, natural and human, the direction of investments, the orientation of technological development, and institutional changes are made consistent with present as well as future needs" (Bruntland, 1987). Environment conservation is mainly stressed by the conservative definition of the sustainable development given by G.H. Bruntland (1987). Recently, the definition of sustainability of development has revised consistent with economic and societal conservations, therefore it is amalgamating three concepts i.e. Economy, Environment and Society; and equilibrium among the facts is mostly asserted.

Having completed the agenda of "MDGs" nearly after 15 years, innovative Sustainable Development Goals (SDGs) were introduced to the world by the United Nations Earth Summit (RIO+20) in 2012, known as 2030 Agenda. In order to understand the relationship between sustainable constructions and sustainable communities, the framework provided by the 2030 Agenda is employed here. Especially 9th goal of the Agenda deals with the resilient infrastructure, inclusive-sustainable industrialization and foster innovation; Sustainable cities and communities are considered in the 11th Goal.

The goal 9 of the agenda is composed of three important aspects of sustainable development i.e. infrastructure, industrialization and innovation (UNESC, 2016). As far as the economic growth and social development in Sri Lanka is concerned, industrialization with infrastructure development is of vital importance to the state. Regardless of the societal situation of the country, stabilization of the economic status is an essential matter, and probably the social development and human wellbeing also thought to be an output of economic stabilization of the country. Therefore, substantial part of the national budget has been allocated for the economic growth and rapid industrialization of the country. Whereas, the 11th Goal advices the bureaucrats to concern much on the sustainable cities and communities (UNESC, 2016). Therefore, it is important to understand the social aspect of macro constructions in the state driven development projects.

This study manly focuses on the argument _"Making cities and human settlements inclusive, safe, resilient and sustainable" consistent with the 11th Goal (UNESC, 2016). The dialogue of SDGs is a production of western intelligentsia, and always there is a critical issue as to what extent these goals can be employed in the Third World countries; even the 11th Goal argues that "More than half the world's population lives in cities. Despite numerous planning challenges, well-managed cities and other human settlements can be incubators for innovation and ingenuity and key drivers of sustainable development" (UNESC, 2016). The statement is mostly directed towards urbanization and urban habitats, and little attention to the community life or peasantry but they are believed to be the majority of the population in the third world(Desai & Potter, 2011), so that the statement itself prejudiced (Urban Biased).

Human development or welfare is considered to be the first objective of many modern nation states, including Sri Lanka. Therefore, mere consideration on the development of infrastructure and economic growth are not sufficient enough to address the matters of wellbeing of the citizens (Sen, 1999). However, because of the compilation issues and compilation prejudice (scientific and technology based decision making) of the macro development projects by the state, human development and wellbeing has been demolished to a greater extent.

As Shiva (2007) specified, "Living cultures are spaces in which we shape and live our diverse values, beliefs, practices and traditions, while fully embracing our common, universal humanity and our commonality with other species through soil, water and air". When state driven macro development projects administered by engineers' intelligentsia are taken place, not only the concrete and bricks but also the human aspect must be taken into consideration, since at last the soulless constructions associated with concrete and bricks will be given breath by the human beings.

On the other hand, Sri Lanka as a developing nation has been struggled to alleviate poverty for several years, and witnessed a substantial progress. But, some argues that it is only a statistical representation (Yapa, 1998). "The Hidden damage caused by market based

development and globalization process have created new forms of poverty and underdevelopment" (Shiva, 2005, p. 15). Many post-modern development writers argue that there are no clear relationship between community component and the engineers who are involved in construction process owing to multifaceted barriers such as knowledge gap, urban prejudice, hegemonic identity etc. (Escobar, 2005).

Scudder asserts that large scale water resource development projects unnecessarily have lowered the living standards of millions of local people. Involuntary resettlement is arguably the most serious issue of hydro projects (Scudder, 2005). Scudder identified a specific group of people who are not considered by the project itself and victimized unknowingly. When the social impact assessment is compiled, mainly the people who are benefitted or victimized are considered, however there is a third category which is not considered as benefitted or victimized although they have been affected severely in many ways.

"Besides resettlers and hosts, other people affected by dam construction include rural dwellers residing downstream from a dam. They are often neglected in project assessment because it is assumed that they will benefit from the project, but evidence suggests that there are significant negative impacts" (Scudder, 2005, p. 41). More often this is because of the decisions and judgments of administrators or engineers who formulate development projects regardless of the community concerns.

UMDP (Uma Oya Multi-purpose Development Project) is a macro level development project and basically intended to facilitate people with infrastructural provisions thereby alleviating poverty and intensifying the down-south industrialization of Sri Lanka (Ministry of Irrigation and Water Resource Management, 2010). Iran funded UMDP was initiated in mid-dry zone, Sri Lanka. The main intention is to divert the water of Uma Oya (river Uma Oya) to dry zone using a tunnel, though some other objectives are also articulated in the project since it has initiated as a multi purposed development project. There are three implementation stages of the project, however here only the first stage is considered and it is located in *Bandarawela* Division of *Badulla* District.

State's intervention in human welfare and wellbeing is widely justified, since the state is assumed to be a rational institution; in fact the ultimate end of all rational institutions. In the state, individual self-consciousness is raised to universality and the unity thus established is 'its own motive and absolute end. In this end freedom attains its highest right'(Hegal, 2001). Sustainable construction, believed to be associated with the freedom of living beings including people in the living cultures. Realization of the freedom of inhabitants of any kind will more often stabilize the social order by strengthening the built environments. However, imbalanced bureaucratic power relations among stakeholders of development projects, intentionally or unintentionally will give rise to an unstable situation with unexpected catastrophes. So that, this study tries to understand some societal dimensions of state driven macro development projects with special reference to different stakeholder engagement in the process of construction.

4. METHODOLOGY

The study is conducted mainly through Case study methodology with grounded theory background. Basically qualitative research approach is employed here to reveal the behavioural patterns of different stakeholders of the construction project. Uma Oya Multi-purpose Development Project is the unit of analysis of the study. At first, construction site was visited and investigated not based on scientific rigor but laymen interpretations. The laymen interpretation and conceptualization of the construction represents rather different perspective to the scientific interpretations. With the intention of understanding sustainability of construction projects consistent with SDGs, often societal aspect is highly considered. Furthermore, 46 respondents from the community were interviewed in a manner consistent with theoretical sampling and categorized them in to four groups such as, Relocatees, Hosts, Immigrants and None of Them. The abstract or high level case was constructed after analyzing each individual case. Collected data thus were analyzed using thematic analysis.

5. ANALYSIS

Stabilizing human wellbeing of any kind is of vital importance to the modern nation states, since the political discourse is often determined by the citizen engagement in civic activities. Sri Lanka, as a developing nation has long been engaged in human and economic development activities, but infrastructure development is the uppermost among them. Recently UMDP was established so as to intensify the industrialization process of down-south Sri Lanka thereby decreasing unemployment rate. As a matter of fact, the project has been administered mainly by the engineers' intelligentsia with state bureaucrats. Even the human resources management of the project has been administered by a particular group of engineers, even though they seem not to be well equipped with relevant skills and theoretical knowledge of administration or management. Therefore, the process of construction and management of the development project are often dominated by the particular hegemonic class and no access to the outsiders or other stakeholders to a certain extent. This situation makes an imbalance of the decision making power among stakeholder

of the project conducive to unexpected repercussions.

Engineering intervention in construction is a universal practice and has a scientific rigor, but the community consciousness has no real association with scientific intelligentsia, because so called engineers intelligentsia often believe that the general public is not composed of necessary skill-set or knowledge and they are excluded from the process. Most of the time, engineers formulate construction policies based on material arrangements, even though multi-disciplinary approach to program compilation was recommended. They argue that the human wellbeing and the social development can be constructed in accordance with material and physical arrangements, so that the societal component is basically neglected. Universality of the engineering intervention gets changed in a manner consistent with the place or the field where the intervention is employed; in fact the reality is neglected thereby making unstable constructions. The universal principles of engineering practices may be employed, but the societal component must be taken into consideration, because disposition or nature of the practices gets changed or modified with the societal sphere where the practices are employed.

There is a substantial difference between laymen definitions and scientific definitions regarding the development paradigm. Mostly the engineers of the project try hard to construct the material or physical structures, and the living culture or human engagement is neglected. Laymen or the people who are not experts, however being considered as beneficiaries or victims may define their wellbeing consistent with their own definitions and disposition. Sen (1999) specified the freedom of any kind in the human development, because development really means the stabilization of freedom of any kind. The communities often forced to the prejudiced development, even without realizing their expectations. Probably scientific definitions of development do not represent community's expectations and needs, therefore always there is an issue associated with the sustainable constructions.

A. *"Underground tunnel is more useful in many ways, and may decrease the harm for life on the earth" (Extraction from a case).*
B. *"We have been lived here nearly for 60 years. We normally know the land tenure of this area. How and in which way they would built an underground tunnel here… it is not possible… these are arable lands. So if we unable to get the water required, we will lose our lives…" (Extraction from a case).*

The excerpt A represents the experts' definition whereas B represents the laymen definition, and they are mutually exclusive. Therefore, the constructions may appear vibrant, but the inhabitation will be a problem, probably the sustainability will be neglected thereby engendering unexpected catastrophes.

Some of the critical decisions assumed before the construction, get fallacious with catastrophic situations during the construction phase. In order to minimize hazardous situations and on earth calamities, an underground tunnel was supposed to be built by the management of UMDP. It was assumed that, because of the underground tunnel it would be possible to minimize the calamities associated with agricultural lands and rural habitat on the earth. At the beginning it appeared to be a substantial solution, although later it transformed to an unexpected catastrophe. Because of the underground tunnel, most of the water fountains disappeared on earth and leaked into the tunnel, and the agricultural life style of the people affected negatively. This is because of the presumption that had taken place in the compilations stage of the project by neglecting the specific conditions of the field where the project is supposed to be initiated. Once the water fountains are disappeared on the earth, many of the engineers proclaimed that when the construction is completed, water fountains will be reappeared and livelihood of the people will be sustained. However, people's argument over the above statement is different, i.e. "*we don't know when this project will be completed, until that day we have to suffer. On the other hand, who knows what will happen in the future. It will be quite unstable*". Beforehand decisions have been transformed into an unexpected calamity, due to the community participation in the programme compilation had been neglected.

Expected results from the development projects (here UMDP) are hardly to be achieved owing to the problems of project proposal itself. Basic dialogues for the UMDP was started in late 90's of the past century, however it was not accepted for the grant consideration by the Asian Development Bank because of the potential environmental impact it would be a cause of [19]. Later the project was approved by the central environmental authority in Sri Lanka, after major modification to the proposal had proposed and the socio-environmental impact had identified with some potential solutions. Even though the project was approved, there were many problems itself, that would possibly harm the societal aspect of the sustainability. Significant part of the dissatisfaction of the people towards the UMDP derives not only from its process but also from the agreement or proposal itself. As witnessed even by the engineers, some sections are vague and difficult to transform into practice.

It seems that the demographic composition of the area was neglected, when the

project proposal is formulated. Probably the expectations of UMDP have been aimed at industrialization of the down south, though the construction is based on remote rural areas in Sri Lanka. This is not unique to the UMDP, but the project's construction work has taken place in rural areas, therefore only the apparent beneficiaries and victims were considered as the way often employed by the development process. Specifically some of the groups had not been identified due to the lack of community participation in the policy compilation stage, and this would not be able to consider as a sustainable practice which is conducive to a sustainable built environment.

Unique bureaucratic model of the development project is another critical cause to be considered. The project and the policy matters were often taken into consideration by the high level state bureaucrats and there is a relationship with public administration system, as the development policy of the country is determined by the public administration system. However, once the project has delivered into the implementation stage, engineers became dominant in the administration process, because they are the stakeholders mainly involved in the construction. Hence, there is a clear detachment between the state administrative system and the project's management system, probably they are mutually exclusive. For instance, local level administrative authorities (ex: Divisional Secretariat) do not have any control over the project and the stakeholders, although they are responsible of the people's life who are more often considered benefitted or victimized. On the contrary, management of the UMDP is organized in line with engineers' involvement. Therefore, locals are confused as to where failures of the project should be reported, and this is not a sustainable practice.

It is a fact that the disposition between engineers and general public are significantly different, so do their expectations and roles relevant to the statuses. After an unexpected catastrophe has taken place due to construction process of the UMDP, the existing societal organization became unstable. Even though the catastrophe is not justifiable consistent with laymen interpretations, it is justified by the managing engineers of the project based on scientific evidences. And it represents the real disposition or habitus of the engineers' sphere. In fact, disposition of the powers (of engineers) override the disposition of powerless. Therefore, imbalance of the power structure will act as a barrier for the sustainable development.

Many of the Development projects based on water management and dam construction has widely been popularized, mainly because its ability of producing wide variety of benefits. However, human displacement has been a beigest challenge encountered. Displacement is often assumed by engineers' intelligentsia as something to be minimized with sustainable solution, in contrast it's a fact that, not only the physical displacement of the people has been widened, but also their world vision and the life world became unstable. Human displacement associated with jeopardized life world is hardly interpreted by the engineering interventions. Therefore, when development policies are formulated, it's recommended to have a sufficient consideration on the subjective aspect of the human engagement in development projects.

It's a strenuous exertion to identify and interpret some challenges of sustainability within third world development interventions thereby suggesting some solutions. Through the study it's identified that, policy coherence is more important than policy coordination. For an instance, construction decisions must be acceded with societal needs and environmental regulations. And policy formulation must be collaborative and contested. Every stakeholder must be given the opportunity to interrogate the policy decision as they are subjected to the consequences of the project. On the other hand, local government shall be involved with the management process of the development projects.

6. CONCLUSIONS

Conceptualization of material development with human development is considered equally important as wellbeing of the people considerably determined by both of the above perspectives. Societal, economic and environmental aspects shall be well balanced so as to strengthen the real sustainable development in which people can enjoy. Regardless of any intellectual discourses, ultimate expectation of the development process is to uplift the life chances and wellbeing of people. The people who really expect the intervention of the state in development process will not often consider the philosophical debates, they just expect the better consequences. The concept of "sustainability" is a production of Western Intelligentsia, even though many third world countries were participated. Therefore when the concept is employed (practically initiated) within the third world countries always it gives rise to some unexpected issues. The states considerably concern on infrastructure development and will be believed to have a human development alongside. However, development is not only a matter of concrete and bricks, but also of human wellbeing and living cultures.

REFERENCES

1. *Bruntland, G. H. (1987). Our Common Future: World Commission on Environment and Development. New York: Oxford University Press.*
2. *Chambers, R. (1997). Whose reality counts? London: ITGD Publishers.*
3. *Desai, V., &Potter, R. B. (2011). The Companion to Development. London: Hodder Education.*

4. *Escobar, A. (2005). Encountering Development : The Making and Unmaking of the Third World. New Jersy: Prinston University Press.*
5. *Harvey, D. (2007). A Brief History of Neoliberalism. Oxford: University Press.*
6. *Hegal, G. W. F. (2001). Philosophy of Right (S. W. Dyde, Trans.). Kitchener: Batoche Books.*
7. *Ministry of Irrigation and Water Resource Management. (2010). Environamental Impact Assessment of UMDP. Colombo: Sri Jayawaradanepura University.*
8. *Rawls, J. (1971). A Theory of Justice. Cambridge, Mass: Harvard University Press.*
9. *Scudder, T. (1993). Development Induced Impoverishment and Resistance. Resisting Impoverishment, 123-135.*
10. *Scudder, T. (2005). The Future of Large Dams: Dealing with Social, Environmental, Institutional and Political Costs. London: Earthscan.*
11. *Sen, A. (1999). Development As Freedom. Oxford: University Press.*
12. *Shiva, V. (2005). Earth Democracy. London: Zed Books.*
13. *UNESC. (2016). Agenda for Sustainble Development Goals. Retrieved 26/09/2016, from https://sustainabledevelopment.un.org /content /documents /21252030% 20Agenda%20for %20Sustainable%20 Development%20 web. pdf*
14. *Yapa, L. (1998). The Poverty Discourse and the Poor in Sri Lanka. Transactions of the Institute of British Geographers, 23(1), 95-115.*