Sustainable Development Goals: Perspectives from Developing Countries

Capacity-Building Programme on Sustainable Development Goals (SDGs) under the ITEC Programme of the Ministry of External Affairs, Government of India
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RIS
Research and Information System for Developing Countries

विकासशील देशों की अनुसंधान एवं सूचना प्रणाली

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In September 2015, the world leaders of 193 countries adopted the 2030 Agenda for Sustainable Development with a set of 17 Sustainable Development Goals (SDGs) and 169 associated targets. These goals and targets are universal, integrated and indivisible; and balance the three dimensions of sustainable development: economic, social and environment. The SDGs mirror India's own development initiatives that are robustly on track to fulfil the aspirations of inclusive and sustainable development. With the aim of creating knowledge, awareness and simultaneously exploring the implementation strategies on the SDGs at the national and international level, RIS organised a two-week training programme on SDGs under the Indian Technical and Economic Cooperation (ITEC) initiative of the Ministry of External Affairs, Government of India, during 06-17 August, 2018. This is the first course under the ITEC focussed on the SDGs. 32 participants from 24 developing countries participated in the course.

Apart from thematic orientation sessions and lectures, in order to demonstrate integrated nature of development challenges and expose the participants to practical issues of implementation, study tours were organised to the Parliament of India; the Ministry of Environment, Forests, and Climate Change (MOEFCC); the International Solar Alliance (ISA); and the Ministry of Housing and Urban Affairs (MoHUA). They had the priviledge of interacting with Hon'ble Minister of State (Independent Charge) in the Ministry of Housing and Urban Affairs Shri Hardeep Singh Puri and other stalwarts from the fields of academics and policymaking. They got wider exposure to Indian history, society and culture with their visit to historical and popular sites in Delhi and Agra. They were provided with sizeable reading material to deepen their understanding on the issues.

The participants undertook rigorous group activities on six broad areas pertaining to strategies for SDG implementation: Financing for Development; Science, Technology and Innovation; Sustainable Oceans and Blue Economy; Gender Empowerment and Education; SDG Indicators and Monitoring; and Governance and Administrative Framework for SDGs. We are pleased to publish this short Report comprising of contributions from each of the 6 groups on the aforementioned themes. We are sure that the Report will be found interesting and useful reference by scholars, policymakers, and practitioners from developing countries.

We are grateful to the Ministry of External Affairs, Government of India for their support and guidance in conducting this course. I am thankful to my colleagues Dr Sabyasachi Saha, Ms Prativa Shaw and the team led by Mr M. C. Arora for their efforts in organising this course.

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I

Financing Sustainable Development Goals

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Financing Sustainable Development Goals

Introduction

The Sustainable Development Goals are universally agreed by all countries as the framework for the development in 2015 but financing for development of the SDGs has been an important issue at the UN. However, there has been tremendous effort by the countries under the framework of South-South and Triangular cooperation; India being at the forefront in developing an inclusive and adoptable framework for collaboration and financing.

Official development aid (ODA) flows recently to most developing countries has been characterized by low impact, high cost of technical assistance, donor-driven approach to aid delivery, proliferation of aids agencies, uneven spread of donor activities, institutional weakness, inadequate coordination of portfolio of projects corruption, and problems of counterpart funding. And all these have hampered development in the South-South world. With the introduction of SDGs, there is a need for member- nations to take responsibility and forge collaborations by learning from collective experience and configure their approaches with caution of not repeating the past mistakes.

Yuen (1998) concluded that Africa remained a big-black hole for aid despite billions of dollars of economic assistance and decade of effort and time. The main reason for non-performance was lack of the social infrastructure or the software to drive and coordinate development. However, France and Japan, on the other hand, used their interventions from the US, which came in the form of Marshal Law, effective as a catalyst to stimulate sustainable development. Japan for instance being a country with no natural resources took advantage of its human resource by empowering them through training as well as putting in place right policies focusing on improving living conditions of its people.

The South-South Cooperation, on the contrary, through the thinking inherited from the colonial times, has placed so much emphasis on the natural resources; neglecting its human resource, leading to exploitation, taking away resources from the people and not giving them anything. It is very important to note that most of the south-south countries have a huge natural resource but lack software to tap theresources optimally for the benefit of their people. There is, therefore, a need to rethink, learn from others, and move fast for development.

Financial Flow Framework

One of the key elements for development is resource or finance. Most nations find finance as a limitation for development. On the contrary, Japan as mentioned above has no natural resources, and is mostly rugged and mountainous but was able to move up the ladder of development. A big lesson here is that the most important tool for development is well- educated human resource empowered through enabling environment .

A framework for SDGs financing is very important. However consideration must

be given to interconnectivity of the SDGs in articulating the framework. An optimal approach in financing one goal can be detrimental to the other goal. Hence financing SDGs should have a holistic approach or system approach view of the MDGs. This will eliminate counter productivity as a result of poor funding/implementation of one goal having adverse effects on the other. Thus, from the onset, the financial framework to be adopted by the South-South nations needs to be smart and sensitive to the agenda

Socially Responsible Investment (SRI)

Toward mass mobilization of funds for the implementation of the SDGs, focus should be given to be socially responsible. This may include avoiding investment in companies which are not SDGs compliant by nature of the product they produce.

Creating Shared Value (CSV)

The aspect of shared value creation introduce by Porter, M.E. and Kramer, M.R. (2011) is another area that needs to be given apt consideration. The competitiveness of a company and the health of the community around it are mutually dependent.

Recognizing and capitalizing on these connections between societal and economic progress are crucial in the implementation of the SDGs

Capital Flight, Illicit Flows

This thus calls for a pragmatic way of thinking and in mobilization of funds for financing SDGs. Also, time has come for government to be more accountable with their spending, reducing waste, which can save billions of US Dollar for development and funding SDGs.

A flow-of-funds framework

Source: UN/DESA.
Note: TNCs stands for transnational corporations, SWF for sovereign wealth fund, and VC for venture capital.
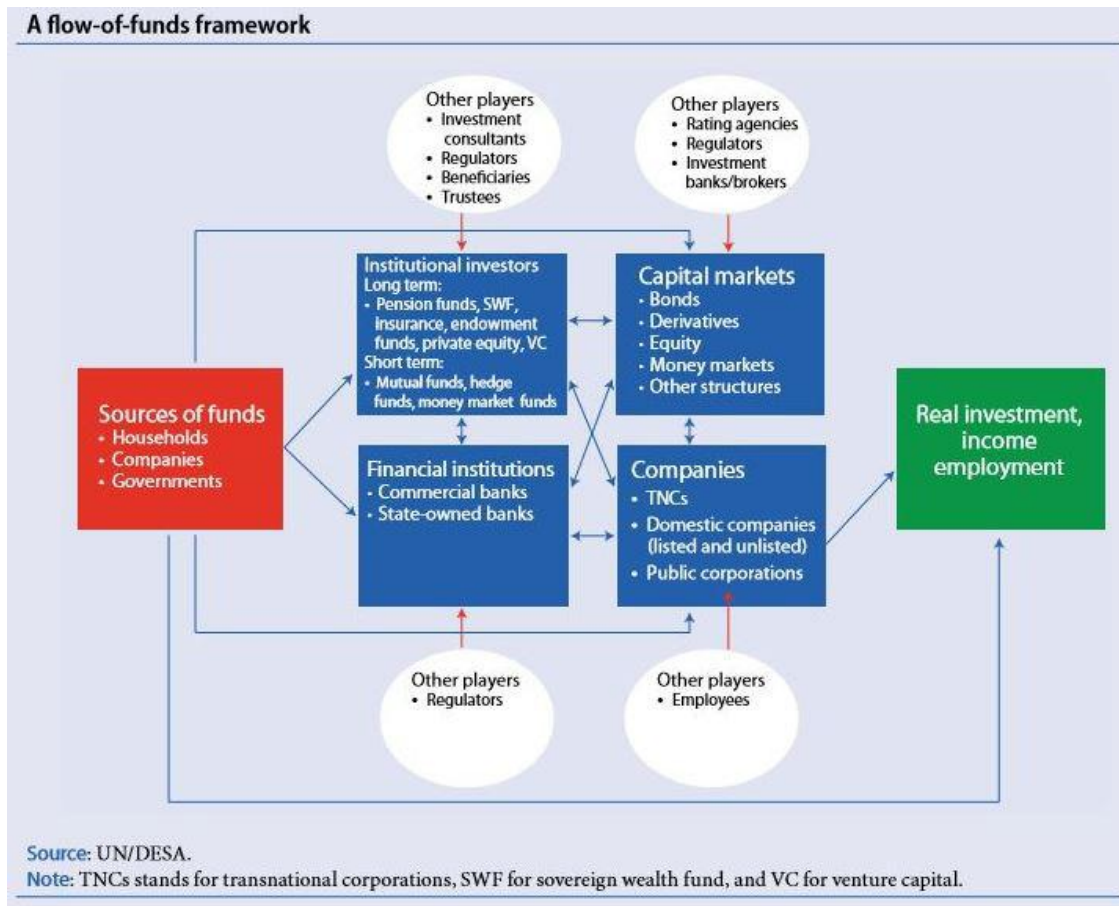
Enormous funds are also wasted in the form of transactional cost owing to lack of cooperation and synergy. Need is to start looking at areas of funds that are pooled such as Pension funds and Mutual funds. The Institution, however, must be strengthened to provide framework to guide the use of such funds as investment for SDGs projects.

It is also a fact that the people in the developing world are searching for where to put their money for development; this can be through the purification of network marketing, forex trading and crypto currency as a way of generating funds. Government needs to look into the area of government bond and other ways of pulling resources from the population not as tax but as invested with guaranteed ROI, which can then be channeled into the area of sustainable infrastructure development.

Government can also pull funding by attracting companies through the creation of enabling environment along the supply chain such as IT parks, Industrial Parks, Renewable energy parks, and putting in place policies, which ensure technology transfer and use of local materials

Most of the Minerals resources that are exported from the South-South nations are not processed thereby not generating optimal revenue to such nations. Countries/government there need to set-up processing zones for such minerals as well as industries that can use by-product of these industries. And this will ensure multiplication of revenue, job- creation as well as innovation.

More emphasis needs to be given to the area of Public Private Partnership in mobilizing funds for SDGs' infrastructure projects which are revenue driven for sustainability

South-South countries must aspire to set time frame to come out being a recipient nation and living on donations to a more developed and sustainable country.

Government collaboration with local companies to fund R&D and reconfiguring competition among companies in the area of turning research into finished quality and lower price goods thatis acceptable internationally can be exported to the developed world. Example is the Case of India developing ECG machine and exporting it to the United States of America and other northern countries.

There is a need to redefine what is considered as profitability and measurement of how well companies are doing by not looking at the Profit after tax only but how much the companies are contributing to the SDGs (A company cannot be destructive to the environment or not contributing in the form of CSR to it local community and yet be declared as being profitable).

Jobs can be created when bigger companies mentor SME to be productive and executing SDGs.

Initiatives for Regional integration in Financing SDGs

For effective mobilization of funds across the South-South nations, there is a need to come up with a framework focusing on the following.

- A new social compact to provide social protection and essential public service for all.
- Global infrastructure forum to bridge the infrastructural gap across the regions
- Due consideration should be given to the LDC countries in the spirit of collaboration to fast track the SDGs financing
- A technology facilitation mechanism to advance to SDGs
- Enhance international tax cooperation to assist in raising resources domestically
- Mainstreaming women's empowerment into financing for development

Responsible Governance

There isa need to ensure the following across borders to attract funds and ensure sustainable development in the country:

- Security
- good infrastructure and transportation and good roads for trade
- Civil institutions
- Political and government intention
- Workers and educated workforce
- Government intervention and to develop laws for the protection of investments
- development should achieve a great deal of justice between individuals and society

As an example country of a successful deployment strategy, japan can be referred to.

Lessons from Economic Development Policy and Management Program in Japan

The Japanese economy could match with other industrial economies in the world. It was based on policies that the government has put to find a system to collective business practices and government intervention, and to close the bubble economy, it adopted the expansive macroeconomic policies.

The Japanese economy was in the middle of a multi-pronged fight to

(1) stop deflation, (2) reform the public sector and its budget, (3) resolve problems associated with non-performing loans and stabilize financial system, and (4) to stimulate business sector confidence through regulatory reforms, tax reforms, and a conducive environment for technology development.

The Strategies that they did to ensure the development of the country was based on:

- Fair Trade Law and the Economic Power Excessive Concentration Elimination Law was enacted.
- Fair market rules: it is a method that is put by laws to give equal rights for companies and to make sure that there is no monopoly by big industries in the country

- Labour market reform: this method is through good and quality education to the people in the country and dividing the type of learning to ensure that it will cover different sectors in the country

- Education reform: to reform the quality of education based on the need of the market

- Artificially Low Interest Rates and Concentration of Funds: it is a way to make sure that the government and people with small projects don't fall in a debt trap that will not benefit the development in the future

- industrial Development and Market Opening: to open markets and opportunities and jobs for the worker to reduce unemployment and burden on the government

- Export of Labour-Intensive Products: this is also a method to reduce the unemployment in the country and is a way to get hard currency for the country,especially if the worker has moved to northern countries, and this method is based on sending money back to the country

- Balanced Budget to Bond Financing: it talks about the debt, interest cost, and its burden on future generations.

- Government financing the budget deficit: if government spending (G) exceeds taxes revenues (T), then there is a deficit which can be financed by issuing government bonds (by borrowing money).

Conclusion

South-South solidarity for financing sustainable development goals is timely. Care must be taken to avoiding some of the errors in the financing ODA in articulating framework for effective financing. Lessons learn both positive and negative should be considered for effective implementation of SDGs

It is high time that the south-south focuses on education and empowerment of its human resource for innovation and economic development.

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II

Gender Empowerment and Education

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Gender Empowerment and Education

"If you educate a man you educate an individual,
but if you educate a woman you educate a family (nation)".

Dr. James Emmanuel Kwegyir-Aggrey (Ghana)

Introduction

The definition of gender empowerment varies among existing literature. But it is agreed in common that women empowerment means that women gain the power to control their lives inside and outside the home, and gain the ability to make their own choices.

The importance of women empowerment appears in enabling women to participate more in social, economic, and political life which, *inter alia*, will help in reducing the gender gap between men and women and increase the participation of women in the public life.

The UN General Assembly adopted on 25 September 2015 the post-2015 development agenda entitled "Transforming our world: The 2030 Agenda for Sustainable Development". The 2030 Agenda entails 17 Sustainable Development Goals (SDGs) and 169 targets, where the specific targets of each SDG are to be achieved by 2030.

The concept of empowerment is reflected in 2030 agenda through several goals, in an integrated manner. But it mentioned directly in the Goal 5 pertaining to gender equality i.e "Achieve gender equality and empower all women and girls" and reflected in details throughout SDG 5 targets (9 targets), which by achieving them, the gender gaps and inequality will reduce significantly to achieve more empowerment of women.

Countries (especially developing countries) experiences vary in terms of the conditions of their women, and in the official and civil initiatives to achieve women empowerment. The following sections will present cases of several countries experiences in term of the current status of women, the challenges facing these countries in term of achieving gender empowerment, and the initiative that had been taken, and the initiatives proposed to be done in the future.

GUATEMALA

In Guatemala, women represent about 51.2 per cent of the population estimated for 2018 of 16.8 million habitants. After the signing of the Peace Accords in 1996, several mechanisms were created for women. Laws and policies were being enacted to address comprehensive development of women, inter-family violence,

sexual violence, trafficking and exploitation, femicide and other forms of violence. Despite these advances, the reality is different from this agreement.

The country is integrated by 24 linguistic groups and 4 towns: Maya, Garífuna, Xinca and Ladino. The indigenous population constitutes 43 per cent of the total population of the country.

Guatemala has been characterized by a marked historical exclusion of indigenous people in general and of women in particular. Illiteracy rates in indigenous women (48 per cent) and men (25 per cent) in relation to non-indigenous women (19 per cent) and men (11 per cent) show high levels of social exclusion.

Access to formal financial services and resources, health services and education are still limited too. Interrelated territorial, ethnic and gender inequalities intensify the limitations of women to achieve full participation in development. Exclusion and racism have generated various forms of violence and structural, legal and institutional discrimination, particularly for indigenous women that living in rural areas. Added to this, it is observed that the state institutions in charge of sustainable development and inclusive economic growth are weak.

The labor market is characterized by unequal relationships between men and women but this has a lot to do with the issue of access to education. The salary of women represents 78 per cent of the average salary of men since in many regions, the indigenous woman work, in agricultural activities but they are not remunerated, since it is considered part of the income of men.

As far as political participation is concerned, for the 2011 elections, 7 million 340 thousand 841 people were registered, 51 per cent corresponded to women, showing an increase compared to 46.9 per cent of women registered in 2007. The most significant participation of women was the inclusion of 6 women candidates in the 11 Presidential binomials, three as candidates for President and three as candidates for Vice President including two indigenous women. For the first time in the political history of Guatemala, a woman was elected as Vice President. Unfortunately this woman, like the President, is in jail because they are linked to the biggest corruption network, another big challenge.

The general objective is to promote the empowerment of women to guarantee their rights, facilitating their participation and benefiting from national development. To ensure a favorable environment for women to fully develop their potential, it is necessary to promote their valuable contribution to the economy (paid work and unpaid work at home) and in decision-making processes. Implement development projects for women entrepreneurs; strengthen their productive, commercial and personal skills.

As well, implementation of development projects for the last generations it's going to be the best decision because they are going to change Guatemala since the root.

MALAWI

Malawi is a landlocked country in the south-eastern Africa and is one of the poor countries of the world with a Human Development index of 0.418, ranking 170 out of 187 countries. Women constitute more than half the population and are disproportionately represented among the poor and the ultra-poor.

Malawi has a Gender Inequality Index of 0.614, ranking it at 145 out of 159 countries. In Malawi, 22 per cent of Parliamentary seats are held by women, and 14.9 per cent of adult women have reached at least a secondary level of education compared to 24.2 per cent of male counterparts. About 72.3 per cent women are physically abused by their spouse in the home while in the workplace, 50 per cent women compared to 11.8 per cent men experience sexual harassment.

Since the introduction of free primary school education in Malawi, enrolment has been increasing. Though girls comprise half of the enrolment in schools, this is an under representation because there are more girls than boys in the school age population. However, completion rates are lower especially for girls as they are nearly twice as likely to leave school prematurely. This has resulted in high illiteracy levels for women. Out of 100 girls who begin standard 1, only about 3 would enter into secondary education. Of those three, only one would enter university.

Malawi recognizes that empowering women and girls helps drive up economic growth and development across the board. With the adoption of SDGs, Malawi is making strides towards attainment of gender equality. Gender equality is also embedded well in the Malawi Growth and Development Strategy as a cross-cutting issue that has an impact on all sectors of the economy. At present, the country has witnessed a number of achievements which include an increase in the proportion of women in the National Assembly from 14 per cent in 2004 to 22 per cent in 2009, an increased number of women in decision making positions in the public service, establishment of victim support units and achievement of gender parity at primary school. Women now take 41 per cent of paid workers outside of agriculture compared to 35 percent 10 years ago.

Attainment of gender equality and women empowerment is being challenged by several factors some of which include the following:

- Gender based violence
- Early pregnancies and Child marriages
- HIV and AIDS pandemic
- Poverty
- High Illiteracy levels of women and girls
- Women trafficking
- Harmful traditional and cultural practices

Gender inequalities still persist in the country despite efforts by the government, NGO's and the private sector. To guarantee gender equality and women empowerment, the government adopted the National Gender Policy whose purpose is to mainstream gender in the national development processes to enhance the participation of women and men for sustainable development and poverty eradication. Among other things, the policy promotes the following:

- Equal access to quality education to all school age children at early childhood, primary, secondary and tertiary levels.
- Usage of a gender responsive curriculum, education materials and equipment at all levels.
- Reduction of dropout rates of girls and boys at all levels of education
- Increasing enrolment of girls in sciences, technology and mathematics subject
- Empowerment of women and men through equitable access to adult functional basic education

MALI

In Mali, women represent over 51 per cent of the population. Although women are engaged in many areas of development, they struggle to position themselves as effective articles on all issues affecting them, despite the efforts of the Government and its development partners that are strongly committed to equality.

The woman is victim of discrimination and the majority of local practices make them precarious and limited about access to land. Women farmers are excluded from land control and land-use decisions that limited the empowerment activities.

Victims of the marginalization of gender-based violence, the recent security crisis, combined with the effects of climate change, has profoundly affected women at various levels, thus reversing all the initiatives developed by them to strengthen their resilience to face many challenges.

There are some initiatives to include woman in technical and financial support, to make the women a decision maker. And also the National Assembly on 18 December 2015, which marks the country's desire to strengthen the presence of women in decision-making spheres, was the focus on the same idea.

Work was focused on identifying and examining new areas of reform like the Constitution, civil and economic rights, etc. And the examination of the best strategies of Law on gender in the field of elections of nominative positions, the development of strategies to support women candidates in the upcoming communal elections, were also included in the agenda of this public forum in the National Assembly.

It was on these themes that two experts from the NDI/NIRAS program, the gender consultant and the expert on parliamentary capacity-building, made presentations in order to facilitate exchanges between the participants. These discussions eventually led to the adoption of a common vision embodied in a declaration and a road map.

Gender parity also increased from 0.85 in 2015 to 0.86 in 2016. This increase is due to the continuation of the national policy on girls ' education. One of the objectives of this policy is to achieve parity between girls and boys in terms of school attendance in all regions and particularly in those regions where the dropout rate for girls is fairly high (Mopti, Ségou, Sikasso, for example).

NEPAL

NEPAL is a Federal Democratic Republic country with population of 26,494,504 (2011), 28,982,771 (2016 estimated) with area of 147,181 sq. km., having 7 provinces 753 Local Governments. Being least developed countries of the world with per capita income of about US$ 850 in 2017, is recovering from a decade long civil war ongoing through a stage of peace building, social reconciliation and economic revival.

The UN Conference on Sustainable Development held in Rio de Janeiro in June 2012, and UN General Assembly (UNGA) held in September 2014 prepared the foundation for SDGs and agreed in the UNGA (September 2015). Nepal, as a member of the UN, is committed to this global initiative to be achieved by 2030.

The targets under SDG 4 include ensuring, by 2030, (i) that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes, (ii) that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education, (iii) equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university, (iv) that a larger percent the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship, and (v) elimination of gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, among others. NER in primary education has reached 96.6 per cent in 2015. Similarly, numeracy rate for all 15 years and above reached 62.2 per cent and literacy rate of population of age 15–24 years reached to 88.6 per cent in 2015. The proposed specific targets for SDG 4 include 99.5 per cent net enrolment and completion of primary education, and 99 per cent gross enrollment in secondary education by 2030. Both men and women to achieve literacy and numeracy; there is need to eliminate gender disparities in tertiary education, and increasing the Human Assets Index to 76 in 2030 from 67 in 2015.

The targets under SDG 5 include (i) ending all forms of discrimination against all women and girls everywhere, (ii) eliminating all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation,

(iii) eliminating all harmful practices, such as child, early and forced marriage and female genital mutilation, (iv) recognizing and valuing unpaid care and domestic work, (v) ensuring women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life, and (vi) ensuring universal access to sexual and reproductive health and reproductive rights. Gender Inequality Index and Gender Empowerment Measurement stand at 0.5 and 0.568.On gender parity in labor force participation and political empowerment of women, Nepal moved ahead, and stands on 110th position in global ranking for global gender gap in 2015. The *Global Gender Gap Report* highlights that Nepal moved down to 94th from 88th on the health and survival sub-index and 70th on the political empowerment sub-index. The proposed specific targets for SDG 5 include elimination of wage discrimination at similar work, elimination of physical/sexual violence, eliminating all harmful practices, such as child, early and forced marriage and chhaupadi, increasing seats held by women in the national parliament to 40 per cent, and increasing women' share in public service decision making positions by nearly 4 fold to 7.5 per cent in 2030 from 2.0 per cent of total public service employees to 22. The Gender Inequality Index is targeted to decline to 0.05 in 2030 from 0.5 in 2015 while Gender Empowerment Measure is expected to rise to 0.70 by 2030 from 0.56 in 2015.

STATE OF PALESTINE

In Palestine, all partners are working to achieve women empowerment led by the Ministry of Women's Affairs, government partner institutions such as gender units, women's institutions, civil society organizations and international organizations which have set national priority goals that take into account national needs and international requirements to achieve sustainable development goals with a methodology approved by the Council of Ministers. One of the most important national consultative achievements was the achievement and agreement on a national strategy for gender equality for the six-year period 2017-2022, including the goals and indicators of the fifth objective of the sustainable development agenda 2030, and endorsed by the Palestinian government.

The Palestinian government seeks to increase the percentage of women in the labor market. The official statistics show that the proportion of women in the labor market is 19 per cent for 2017, which is low if compared with the global rate of 54 per cent, this means that 81 per cent of women do not think of working at all. They spend most of their time in household chores. The low rate of unpaid time for men for women is mainly due to the widespread culture that the responsibilities of the household chores are the responsibility of women. Therefore, the work on this cultural segment is still difficult to reach for many considerations, including lack of experience in the preparation of policies for this category, as well as the mind of the Palestinian community who support this trend.

Further, the Palestinian women are working in a dispersed political and social environment, which is reflected in their participation in all leadership positions. In spite of the measures and policies adopted in this regard, part of which was the adoption of women quotas in the Local Councils and the Legislative Council. This led to a rise in the percentage of women from 1.5 per cent to 20 per cent in the local and municipal councils, and from 5.6 per cent in 1996 to 12.7 per cent in the Legislative Council in the last elections of 2006. Palestine is still seeking to increase the proportion of women to 30 per cent maximum in the Legislative Council, which is a reflection on the adoption of laws that include and respect the rights of women in essence. Furthermore, women have achieved a range of achievements at the level of administrative positions, where women occupy 11.9 per cent of the rank of Director-General and higher for the year 2016 in government

cadres, and the percentage of women in the position of director are 23.6 per cent for the same year.

In terms of equity in education, Palestine adopts a policy of equal opportunities for males and females, where basic education for grades (10-1) is compulsory. The total female enrollment in basic education is 99 per cent , and 96.6 per cent for males in 2017. For higher education, the gap is 40 per cent for males and 60 per cent for females. Around 43 per cent of males to 57 per cent of females are holders of postgraduate certificate in higher education. The difference is due to male joining the workforce before completing their education in post-compulsory education.

Despite the great efforts of Palestinian national institutions for the advancement of women towards empowerment, there are a number of challenges that need to be addressed to overcome them:

• Poor coordination and networking between international institutions that work within the objectives of development, which leads to the dispersion of funding and replication of programs and the expansion of the segment of beneficiaries of development programs.

• Traditional culture continues to limit the desired change

• The Legislative Council is disrupted, which impedes the issuance and legislation of laws easily

• Lack of clear mechanisms for assessment and follow-up of programs and projects to develop lessons.

Palestine has achieved an important number of initiatives that reflect the implementation and achievement of gender empowerment. The most important of these initiatives is the forming of an international team with International Certificate from the International Labor Organization (ILO) Institute in Turin, Italy to carry out participatory gender audits. This is directly linked to the examination of institutional gaps in planning and budgeting, training, project implementation and the development of an alternative plan to fill any gap. In addition, the Palestinian government decided to establish a national observatory to combat violence against women to develop urgent policies towards violence against women, including economic and social violence. On the field level, Palestine adapted the Social Security Law, and the law on the registration of movable funds allows women to obtain loans with guarantees of movable funds.

TAJIKISTAN

The Republic of Tajikistan is a Central Asian Republic, which has close relations with Islamic history, but at the same time, the country is not Islamic. Therefore, on the speaking about gender equality in Tajikistan, we need to consider such factors as religion and culture, as well as financial opportunities, as it is the engine of all opportunities.

Throughout human history and to this day, the issues of gender equality have their relevance. Previously, the humankind even had no idea what gender equality was. Women have always been (and are) the keepers of the hearth, and men earners. Over time, civilizations have changed, but the roles of women and men have remained unchanged. Nowadays, in every country, including Tajikistan, governments seriously consider gender equality issues. In the last century, women were dissatisfied with their position, they demanded not only equal respect, but also equal rights and opportunities. Through the time, they have achieved the desired and now, they have to wake up every day early in the morning, so as not to be late for work (joke).

Of course, the situation with gender equality is different in each country. According to both Tajik and Islamic culture, women have equal rights and opportunities with men. However, the question is how these rights and opportunities are applied in practice.

At present, all conditions for gender equality have been created at the legislative level in the Republic of Tajikistan. Moreover, gender equality among children and young people is under the direct control of the state. Tajikistan has a Law on the responsibility of parents for the education and upbringing of children. If the parents do not take their children to school, they will be fined. At first glance, one might think that the law might not apply to gender equality, but due to the lack of financial resources (there is no possibility to buy school uniforms and school supplies), in villages, families sent only boys to school.

Also, despite the fact that the Constitution of Tajikistan States that "men and women are equal" (Article 17), according to Tajik culture with a mixture of Islamic religion, in the villages believed that the girl does not have to study, as she will marry and look after the children. This created an artificial gender inequality among girls and young (married) women who wanted to work. However, with the adoption of this law, regardless of the wishes of parents, girls can get a school education, learn about their rights, and after graduating from school studies at the University. It should be emphasized that schooling in Tajikistan is free of charge, so in most cases boys and girls study until grade 11. Moreover, after graduation, they can independently decide whether to continue their studies at a College, Institute or University (depending on financial possibilities or winning a scholarship), to enroll on a part-time basis, or to go to work. Another question is whether parents allow them to do this, since there is no law on compulsory education after school, and studying at the University is not free. The research shows that girls from villages with financial difficulties are increasingly choosing to continue their education after school on a part-time basis in cities and to work at the same time to pay for their education thus helping their parents. In addition, they really have such opportunities. In Tajikistan, women have the same rights as men to education, to work, to drive cars and planes, to have seats in government and in decision-making positions, but at the same time, they realize that they are women, mothers and guardians of the home.

Conclusion

To conclude, it seems that all countries have many similar problems with regard to gender equality where women still suffering from different dimensions of inequality. But the good thing is that each country is trying to overcome all of these difficulties through different formal and informal initiatives in coordination with national and international parties.

Furthermore, it is important to make a big effort to educate the girls of this generation, because they will represent in a few years the ideal of empowering the women we need, who participate in politics, important decisions and aspects of economic life, etc. This will be easier, than reeducating the generations that today are of an age to produce.

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III

Governance and Administrative Framework

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Governance and Administrative Framework

Introduction

Development is essentially a continuous process between various dimensions namely social, economic and environmental that aim for the welfare of society. In September 2015 Heads of State and Government agreed to set the world on a path towards sustainable development through the adoption of the 2030 Agenda for Sustainable Development. This agenda includes 17 Sustainable Development Goals, or SDGs, which set out quantitative objectives across the social, economic, and environmental dimensions of sustainable development to be achieved by 2030 peace and partnership. The goals provide a framework for shared action "for people, planet and prosperity," to be implemented by "all countries and all stakeholders, acting in collaborative partnership." During the last three decades, a number of factors have influenced and fructified a shift in perception of people's role in the governance process and in reshaping people public institution relationships. Technological advancement and innovation allow people and stakeholders groups to analyze, assess, and use data to make more informed judgments and hold public service providers accountable. The complexities of the challenges faced today require cooperation among everyone public, private and non profit sector players, not only within countries, but globally.

INDONESIA

Good Governance "Nawa Cita" Programme

Republik Indonesia is a transcontinental unitary sovereign state located mainly in Southeast Asia, with some territories in Oceania. Situated between the Indian and Pacific oceans, it is the world's largest island country, with more than thirteen thousand islands. Indonesia is the world's 14th largest country in terms of land area and the 7th largest in terms of combined sea and land area with over 261 million people, it is the world's 4th most populous country. In 2014, the new administration established a new vision of national aspiration called Nawa Cita, or the nine visions or hopes, which aims at ensuring the safety of all citizens, developing good governance, developing peripheral regions, reforming law-enforcement agencies, improving the quality of life, increasing productivity and competitiveness, developing strategic sectors of the economy, overhauling the character of the nation, and strengthening the spirit of Indonesia's "unity in diversity" and social reform. In order to realize the nine visions, the government translated them into the National Medium-Term Development Plan (RPJMN) 2015–2019 that has been well-aligned with the SDG targets. This alignment is the principal foundation for SDG implementation in Indonesia.

Aligning the SDGs and their national priorities

In order to implement his new vision, the President announced 10 national priority programmes for the upcoming Government Work Plan to be implemented in Indonesia from 2018 onwards, which covers education, health, housing and residential areas, business and tourism, energy resilience, food security, poverty alleviation, infrastructure development, maritime connectivity and other maritime issues, and regional development.

In July 2017, the President of Indonesia required all government programmes in the provinces and cities to be aligned to the above national priorities and the SDGs.

MADAGASCAR

Environmental Governance for Sustainable Development

Madagascar has always been recognized as an exceptional biodiversity reserve. But its nature has deteriorated throughout the twentieth century (from 0.4% to 0.8% of forest is lost per year). The dynamics of deforestation generally reflect the food and financial needs of people around them and their social practices. In this ecological and human context, a legal framework has been developed to establish the conditions for the conservation and preservation of Malagasy forests.

Good environmental governance implies a goal of public participation and a decentralized vision of power. It's the power network, of a public good like information. By governance, we mean a collective process and an alignment of visions, a capacity of organization and articulation in order to provide a solution to overcome the blocking factors of the implementation of the conservation policy.

The National Environment Policy for Sustainable Development is adopted by the Government of Madagascar as the national reference for sustainable environmental management. It's a part of the perspective to achieving the Sustainable Development Goals (SDGs).

Two main issues are mentioned in the National Environment Policy for Sustainable Development and the six specific thematic objectives articulated under the objectives:

Governance for environmental sustainability

- The establishment of an institutional and legal environment favorable to the sustainable management of natural resources to improve the living environment of the population. This will also lead to better ownership of the legal and regulatory framework for environmental integration across all sectors and territories.

- Optimizing the performance of development actors in order to popularize good practices of sustainable development.

- A reliable information system as a decision support device. This system results in the use of an effective monitoring and evaluation planning system, an environmental monitoring system, and

Indonesia: The planning timeline

2030 Agenda and SDGs
Sustainable development

VISION AND STRATEGIC PRIORITIES

Nawa Cita
Good governance, unity in diversity, economic development

Economic Industrialization

Decentrialization Democratization

LONG-TERM DEVELOPMENT PLAN

1955   1966   1998   2005   2014 2015   2019   2025   2030

effective environmental transparency and accountability.

Resilient and prosperous environment, lever of sustainable development

Improved knowledge of natural capital and benefits generated at the national level to promote partnership with research institutions in improving knowledge of natural capital and to contribute to the implementation of the Master Plan for Research on Natural Capital Biodiversity.

A Green Infrastructure Network effectively managed and increasing disaster risk resilience to maintain the integrity of natural capital and promote sustainable forest management in protected and non-protected areas and a resilient climate change resilient economy.

Fair and Equitable Sharing of the Benefits

of Nature Strengthening Socio-Economic Resilience which will result in the promotion of green jobs and the development of waste processing and recycling trades.

MALI

Governance By Decentralization

Decentralization is a policy of transferring the attributions of state to local authorities or public institutions so that they have legal power and financial autonomy.

Mali ratified **MDGs** in 2000, and the **SGDs** on February 5, 2016. In the implementation of SGDs, Mali has started a process of decentralization and deconcentration of administration. It had developed early governance measures (1993-1996), which allowed in organizing in peace, stability, and security, the relationships among

Linkages between Nawa Cita Programme and SDGs

Nawa Cita	RPJM 2015 - 2019	SDGs
Protect all Nations and provide security	Development between regions and security development	Goal 16, Goal 10, Goal 3
Clean Governance, Effective, Democratic	Governace of Bureaucratic Reform	All Goals
Strengthening regional and rural areas within the framework of a unitary state	Development between regions	Goal 1 Goal 2, Goal 3, Goal 4, Goal 5, Goal 6 Goal 7, Goal 8, Goal 9 Goal 10 and Goal 11
System Reforms and law enforcement dignity and trustworthy, and Anti corruption	Anti Corruption	All Goals
Improve the quality of human life, and society	Quality of education, health services, gender, development society	Goal 2, Goal 3, Goal 4 and Goal 6
Market competitiveness	Infrastruktur, Development society, etc	Goals 1-10
Strategic Ecomonic for Economic macro indicator etc.	Economic Macro indicator, Increased food and energy, tourism, industry manufactur	Goals 1-5, Goal 7, Goal 8, Goal 9, and Goal 12
Revolution nations	Quality of education, quality services of health sector, cultural sector	Goal 3,and Goal 4
Strengthen diversity and strengthen indonesian social restoration	Reduce economic inequality, gender equality and women's empowerment	Goal 1, Goal 5, Goal 10, and Goal 16

the different components of society, the mode of economic, production and transmission of the power.

Mali is situated in the heart of West Africa, bordered by 7Countries: **Algeria, Burkina-Fasso, Ivory-Coast, Guinea Conakry, Mauritania, Niger, and Senegal.** It is a former French colony, independent since September 22nd, 1960. Its Capital City is **Bamako**.

It adopted administration of administered by providing local authorities (Urban and Rural communes) with legal and personal autonomy.

Decentralization created 703 municipalities each commendation freely drafted its economic and social development program (**PDESC**). In addition, they are the regulator of their local taxes. Some entries were transferred to them by the central state as: health, education, hydraulic, sanitation, tourism and crafts.

With the funds mobilized at their level, the territorial collectivities carried out works of delegated project management in the transferred domains. The have investments are of various kinds: the construction of health centers, classrooms, drinking water supply, and construction of latrines to eliminate defecation in the open air, the recruitment of communal agents etc.

In the context of the implementation for peace and reconciliation, under Alger process (20 June 2015), the regional councils are administrated by a team consisting of armed groups and the state (government).

In the sense of justice, an indemnification of economic and cultural actors is being under the State and the International Criminal Court.

The decentralized management of public affairs is a very old tradition for all local communities in Mali. This decentralized process is consolidated by the principle of diversity and its consideration in the development of standards for managing relations between individuals, communities and territories, is

one of the major and centuries-old foundations of Malian culture. Decentralization as a state of mind, so a culture is before a technical management.

To better assign peace and security, decentralization evolves towards regionalization. It is a process of deepening decentralization, which is to put the region the heart of regional and social development, by strengthening its legitimacy, and redefining its competence and its means of actions (general statements of decentralization, October 2013).

CAMEROON

Definitions of concept related to good governance

Accountability, defined as the obligation on an individual or organization, elected or appointed and vested with a public mandate, to render account to the people who vested him/it with such powers for actions and decisions taken in exercising his/its mandate. In the strict sense of the word, "accountability" means especially the obligation to render account of the allocation, use and control of public funds and property, in accordance with legal norms and standards acceptable in budgeting, accounting and auditing.

Transparency, defined as knowledge by the public of government policies and the confidence that the intentions of national authorities inspire in the public. It requires that public accounts be audited, that the public participates in decisions taken by national authorities and in their implementation and also presupposes that exact and updated data on the economic and trades situation be submitted to the public.

Stakeholder participation, defined as a process by which stakeholders exercise an impact on decisions of common interest and share in overseeing the resources and institutions that influence their life, which

enables them to control the action of public authorities. In the context of governance, participation is focused on citizens, including women, and takes into consideration interaction between civil society, actors and actions of enterprises. Legal and judicial frameworks, a legal and judiciary system conducive to governance and development is one in which laws are clearly defined and uniformly enforced by an objective and independent judiciary. Such a system provides for necessary sanctions to forestall and repress any infringement. It ensures that the law is observed, defends the right of citizens and facilitates the movement of private capital.

Fight against corruption: the term "corruption" is defined as abuse of power or trust of the public for personal benefit. This definition is concise but it encompasses almost all forms of corruption existing in the public and private sectors.

I would present the concept of Governance related to Participation particularly the participation of the civil society in Cameroon. Relevant provisions for the involvement of civil society are included in the Cameroon national strategic documents. In fact, the "Vision 2035" and the Growth and Employment Strategy paper (GESP) include numerous lines on involvement of the civil society, such as:

National integration[1]: Participation of all people is indispensable to the success of any social project. The strategies considered in this context include the promotion of partnerships between the State, private sector and civil society and the integration of marginalized groups (marginal populations) or usually marginalized (women, children, disabled, elderly, etc.).

The economic role of the state and the partnership strategy: As a strategic partner of the State, civil society will be mobilized at four levels: (i) provision of social services for the fight against poverty and social advancement, including for marginalized groups; (ii) moral authority to safeguard and promote the national cultural heritage, the promotion of common values, fight against the centrifugal forces; (iii) participation and social mobilization crucible for the integration of the productive forces and democratization in the context of decentralization; (iv) monitoring activity in defence of human rights in general, including those of workers, women, children and minorities.

The promotional mechanisms of the GESP will focus on strengthening the participatory approach, consultation, promoting a framework for expression of freedom of association, social dialogue, participation of citizens in policy and plans development, participatory budgeting, public expenditure tracking, monitoring by citizens of the delivery of public services, etc. The partnership with civil society is part of a proactive approach that takes the form of creative spaces through which social actors form their educational development perspective to drive inclusive citizenship development models in Cameroon. By also being involved in the function of social and political mediation, civil society contributes to risk management and to lifting other constraints.

The GESP[2] promotes involvement of the civil society through:

- A strategic governance and management approach of the State that promotes the participation of citizens and civil society in public affairs running;

- An improvement of citizen's access to information for the monitoring and evaluation of public affairs' management by (i) strengthening the participatory monitoring of public governance and (ii) the systematic dissemination of information on public acts including development projects monitoring & evaluation and audit reports. The monitoring & evaluation system of the Public Investment Budget went through a third generation reform in January 2009 in a view to strengthening

both the parliamentary scrutiny and citizen's auditing in the implementation of programs and public investment projects. Additionally, an option was taken in the GESP for the civil society to be widely associated, through various appropriate mechanisms, to the implementation and monitoring of programmes aiming at fighting poverty. With regard to the institutional implementation framework, the private sector and the civil society, as partners to the Government are required by the GESP to provide inputs in the definition and implementation in a number of specific aspects. It is in fact prescribed that resources for building their response capacity or enhancing their representativeness and governance be explicitly budgeted in each program in which they are called to intervene

and integrated into their task specifications. Development partners are equally called to contribution, through provision to of adequate technical and financial assistance to the Government and to other national development actors, based on expressed needs.

Based on the above foundations the civil society was involved, in the SDGs consultation phase in Cameroon, through the organization of participatory consultations in 2013 to define national post 2015 priorities and in 2014 to discuss the localization the related agenda. These participatory consultations were fruitful opportunities for exchanges between representatives of all development actors in the country (the civil society, local elected officials, the private sector, the youth the government and development partners, including United Nations agencies).

In 2015, the civil society also organized a national workshop to strengthen their capacity regarding their full participation in the implementation of the post 2015 Agenda in Cameroon. This civil society capacity strengthening and engagement workshop issued 11 recommendations and resulted in the establishment of a Common Working

and Collaboration Platform for Collaboration (CWCP) for the implementation of the post 2015 Agenda.

Collaborative working relations are in the process of consolidation through formalization with key governmental institutions within CWCP. The desire for greater involvement of all segments of the population in discussions and development activities, encouraged by the development partners, is thus clearly expressed by the civil society and the government.

However, in practice, it frequently happens that contributions from the civil society are not addressed in the way or at the level expected, due to issues with CSOs identification in accordance with relevant topics, the short time allocated to prepare contributions, or to insufficient prior information.

Administrative Transparency[3] : Administrative transparency can mean the opening up to the public of processes whereby decisions are formulated and taken. Efficiency in transparency should be the credo of a civil service at the service of the public. Article 66 of Cameroon's Constitution of 1996 stipulates that the President of the Republic, the Prime Minister, Members of Government, high-level officials, managers of administrative structures, those responsible for the handling of public money and all elected representatives shall declare their assets and property at the beginning and at the end of their tenure of office. Such a provision theoretically implies administrative transparency. But in practice, no declaration of assets and property has ever been made. Good governance being above all compliance with rules laid down, the Cameroonian Government should therefore apply this important constitutional measure.

The Cameroonian administration cannot be transparent without respecting the following principles : (i) consult citizens on the quality of the public services that they receive and allow them a choice of the services offered; (ii) facilitate equal access by citizens to the

services to which they are entitled; (iii) give citizens complete and correct information on public services; and (iv) inform citizens on the way ministries and provincial services are managed, the persons managing them and how much they cost. A comprehensive study should help verify the application of these principles in order to assess the level of transparency. But, from our conversations with the workers we met, the values of professional conscience, honesty, integrity, attendance and punctuality have never been sufficiently disseminated and shared by all. Also, administrative practice gives the impression of a personalization of functions, thus giving property management free rein. It should be underscored that appointments to management positions are not based on any competition founded on merit and professionalism. They depend rather on the discretionary powers of the Authority, who ought to be armed with more or less objectively defined criteria.

Conclusion

Policy implementation systems that enable the public sector to run efficiently should be fair and accountable and open to environmental sustainability, economic sustainability, and human development sustainability. Good governance, in the context of sustainable development can be seen as a synergies effort that combines environmental, human and economic development. By implementing the principles contained, it allows 3 factor in sustainable development, namely the government, corporations, and civil society to maintain and participate in the process that is being carried out. Good governance will then function as an element that efectivelycombines these 3 actors at the same for a to achieve the goals .

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1. Vision-2035, page 35, paragraphe 3
2. Growth and Employment Strategy paper
3. African Development Bank, African Development Fund, Cameroon country governance profile, country operations department central and west regions, september 2004

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IV

Sustainable Development Goals: Science Technology & Innovation

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Sustainable Development Goals: Science Technology & Innovation

Introduction

The SDGs is a call made universally to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. The global SDGs report of 2018 indicates that progress has been made in many areas; nevertheless, some countries are progressing slowly to achieve these goals by 2030.

Science, technology, and innovation are most crucial for the implementation of SDGs. They increase efficiency and effectiveness of the achievement of the SDGs.

In this paper , cases of Congo, Ethiopia, Sri Lanka, Vietnam, and Trinidad & Tobago have been reviewed to assess science, technology and innovation engagements and the challenges faced in the respective countries.

SRI LANKA

Sri Lanka's confirmed goal today is to move from the current lower middle-income country to a high-income country within the next 2 decades.

The Sri Lanka will be stuck forever as a middle-income country due to two reasons.

01) No longer can compete with the new comers to labour- intensive product market because of the increase in its wage levels; a corollary of moving into the middle-income level.

02) And it cannot compete with the rich countries because it does not have the required high technology to do so.

Thus, the acquisition of advanced technology is crucial factor that would determine whether Sri Lanka can join the high-income country club within the next two decades. The way to do so is to accumulate a critical mass of a science and technology base within the country.

STI for Sustainable Development Goals in Sri Lanka

- Until recently, STI had received very little attention in Sri Lanka's development plans. The investment (very low) in Sri Lanka's Research and Development is currently below 1%.

- The Sri Lankan private sector was extremely conservative, and rarely supported such developments.

- The STI Policy of the Sri Lankan Government should promote and encourage community involvement in science and give assistance to scientific research. This encouragement may be conveyed to all sections of the society — rich and poor, initiated and non-initiated to science.

- Several projects that involve wider Sri Lankan citizenship with science are currently underway, and there is a scope to adopt other contemporary international initiatives. To activate these initiatives in a coordinated and integrated way would benefit Sri Lanka's knowledge economy; careful examination of modalities needs to be put in place.

- The Sri Lankan innovation ecosystem encompasses entire innovation cycle starting from ideation to research, followed by technology development, upscaling and commercialization. Importance of strengthening of the capacity, integrating

and connecting all different actors and activities of the ecosystems to get a meaningful outcome has been emphasized. Skills, infrastructure, finances etc. need to be addressed parallel in the ecosystem.

- Emerging technologies are main emphasis of the SDGs such as Nanotechnology, Mobile Internet, Automation of Knowledge Work, Internet of Things, Advanced Robotics, Advanced materials, 3 D Printing and Energy Storage.

- Techno polis is the main dimension for Sri Lankan SDGs preciseness. Sri Lanka is planning to convert the whole of the Western Province into a Megapolis. One improvement to Megapolis should be to develop key Technopolises with research institutions and universities as input providers and industry as output producers.

Constraints for SDG achievements

- Competition to access regional and international market

- Inadequate tools and skills to identify niche opportunities and to respond fast.

- high migration of skills workers and skills gaps and mismatches.

- high cost of innovation infrastructure

- Failure of SL Accounting standards to capture intangible assets

- Risk averse financing system

DEMOCRATIQUE REPUBLIQUE OF CONGO

SDGs

For the Democratic Republic of Congo (DRC), the Ministry of Planning and Revolution of Modernity, under the coordination of the Congolese Observatory Sustainable Development (OCDD), with the support of the United Nations System, led from May to August 2016 a process of contextualization and integration SDGs and targets in the national planning framework, following the approach "Integration Strategy - Acceleration - Policy Support" ;commonly known as "Mainstreaming, Accelerating and Policy Support" (MAPS), developed by the United Nations Development Group (UNDG) to support governments in the implementation of SDGs at the national / regional level. This broadly participatory and inclusive process of building national capacity on the SDGs, existing planning as well as the prioritization of the SDGs and national targetswas experienced by all stakeholders— central government and provincial, private sector, civil society, technical and financial partners, etc.

SDGs Implementation in Science, Technology and Innovation

Kinshasa Researchers in the Democratic Republic of Congo have created an Academy for the Advancement of Science and Technology for Innovation. The Academy was launched in Kinshasa last month (May 9), at a ceremony entitled 'Today's Science for the Development of the DRC of Tomorrow'. It will focus on coordinating scientific research on natural resources to stimulate economic development. Academy Board Chair TabaKaluluMuzele told SciDev.Net that ACASTI also aims to "contribute to the advancement of science, art and literature, and to ensure the visibility abroad of research conducted in different parts of the DRC ".

The Academy will also oversee the development of research and reference educational institutions to encourage young Congolese to pursue career in science. It will be an independent, non-profit, non-political organization with legal personality and administrative and financial autonomy. Funding will come from membership contributions, donations, legacies, and support from the Ministry of Scientific Research.More importantly, he told SciDev.Net that "the researchers' financial difficulties need to be

reconsidered in order to put an end to the brain drain and develop a training system for the benefit of young researchers".

The DRC founded Implementation in science, technology and innovation by new technologies and innovations in 2015. Passionate about new technologies it worked hard to provide solutions suitable for the problems. The mobile payment industry has shown positive developments in the Congo; with the new innovations playing an important role.

- Pepele Mobile, the first multi-network payment service in the DRC,
- Cycle M, the family planning application,
- Palu Check, a mobile application to diagnose malaria,
- PayWebPhone, the Congolese mini PayPal,
- The UB-BOX digital decoder,
- Baziks, the Congolese Deezer,
- Kongo Connect, the 1st Congolese Social Network,
- PataKazi, a site for job seekers,
- Joobaz, a new born in employment to cover French-speaking Africa,
- Pre-Exetat, a mobile education app for terminal students

Challenge

FIRST Global Challenge and this year's theme "Energy Impact" in the use of solar energy and wind turbines, is very interesting and corresponds to country's needs to promote and encourage technology, engineering and robotics education among young students.

Poor Internet access and a lack of electricity cripple start-ups and other commerce in the Democratic Republic of Congo. At the same time, however, the challenges present interesting opportunities to the right kind of entrepreneurs.

VIETNAM

For sustainable development objectives to be realized in Vietnam, a series of policies have been adopted in the economic, social and environmental fields and with the implementation of the international commitments on the sustainable development to which Vietnam is a signatory.

Throughout these documents, Vietnam's position on sustainable development has been confirmed, and highlighted in the Socio-Economic Development Strategy for 1991 – 2000, Instructive No 36-CT/TW dated 25 June 1998; issued by the Politburo of the Communist Party of Vietnam (CPV) on enhanced environmental protection in the period of national industrialization and modernization, confirmed in the documents adopted at the 9th, 10th and 11th CPV National Congresses. The Socio-Economic Development Strategy for 2011-2020 also underlines that "Rapid development in close linkage with sustainable development represents an all-thru requirement in the Strategy". The CPV has adopted a position guided by sustainable development, also being incorporated into the State's policy. For the sustainable development objectives to be realized, the Vietnamese Government has adopted "Strategic Orientation for Sustainable Development in Vietnam" (Vietnam Agenda 21).

A number of ministries and localities have also designed and enacted their respective Agenda 21. Over the past time, Vietnam has signed international conventions related to sustainable development. The Government has assigned relevant ministries and agencies to serve as contact points which would be responsible for the governance, coordination of organization and integration of these commitments into development plans and programmes at all levels for the execution.

Five major areas of focus for science, technology and Vietnam's scientific impact and specialization index, 2000-10 innovation reform

in Vietnam Note included the following:

- Human Capital
- Industrial Development and Entrepreneurship
- Government Research Institutions
- Networking and Open Innovation
- Framework Condition

Viet nam's achievements and new challenges

Vienam's economic and social developments were impressive. High economic performance translated into a rise in per-capita income and reduction of poverty. This meant better lives for many. Vietnam is approaching a crossroad, nevertheless GDP growth has slowed down in a less buoyant international environment.

Vietnam has expanded and diversified its exports but structural change towards "high technology" and eventually more sophisticated goods and tradable services of high knowledge content has been rather slow. Lock-in in low- value-added activities limits the scope for technological learning and improving innovation capabilities.

Vietnam's innovation imperative: Time for effective action

Its current science, technology and innovation (STI) capabilities are weak and its national innovation system is in a nascent, fragmented stage. Research and development (R&D) is still a peripheral activity; both in the business and in the public sector.

ETHIOPIA

SDGs and Ethiopia

The government of Ethiopia has accepted and approved 2030 agenda for SDGs in September 2015. Subsequently, it integrated SDGs into the second growth and transformation plan (GTP II). Reports show that Ethiopia is progressing in some SDG goals, including end poverty in all its forms, and end hunger achieve food security and improve nutrition and promote well-being for all at all ages. Ethiopia has also made significant progress in goal 5, 9, and 14. Ethiopia's tangible progress is in renewable energy sector, and it is now aiming to double its efforts to increase electric power generation capacity from 4,270 MW to 17,000 MW by 2020. SDG 9 is country's priority, and it is now building industrial parks taking into account its competitive advantage in labour- intensive and light manufacturing sectors such as agro-processing, leather, and textiles. Sustainable industrialization of the country is crucial for poverty reduction, economic growth and job-creation. Even though the country is showing progress in implementation of the SDGs, it is facing challenges such as lack of funds and capacity in the development of industrialization and infrastructure.

Science, Technology and Innovation in Ethiopia

In accordance with the World Economic Forum's Global Competitiveness Index (GCI), Ethiopia is positioned 109th out of 140 countries in science, technology and innovation performance, and lags behind in global benchmarking. In terms of technology production and absorption Ethiopia is at the bottom. The reason for its low standing in this area is mainly owing to its very weak ICT infrastructure, low capacity to absorb foreign technology, and unfavourable perception in private sector of the national innovation system. Patents and scientific articles have played very limited role. Even though small and medium agro-processing and manufacturing enterprises have become integral players in the economy of the country; their performance in light of innovativeness is still very low. To improve this, Ethiopia has been adopting and implementing Science, Technology and Innovation policy aimed at alleviating poverty and enabling sustainable development. The country is also focusing on adapting and using appropriate foreign technologies as well as encouraging more

students to practice emerging and artificial intelligence technologies. It is establishing national institutes that work to address establishment of national innovation system by conducting research, providing trainings and incentives in promising fields like agriculture, health, industrial, bio informative and genetic bio-technologies as well as emerging technologies such as nanotechnology, material science, reverse engineering etc.The country has also set an ambitious target to be the leading manufacturing hub in Africa by 2025. Expanding and building world -class industrial parks is a model the country has chosen to follow to make use of its advantage in labour-intensive industries, mainly in leather, textile, and agro- processing sectors. Ethiopia currently has two big industrial parks which are making positive impact in the country's economic growth. It has one IT park among other software companies which are now producing mobile applications to optimize operations in agriculture, manufacturing, and health sectors. These mobile applications for example help agro processors and manufacturers track their sales, keeps them informed about their competitors and act as a knowledge base. In health sectors, the apps help women, who especially live in rural areas, to access information about family planning and contraception and gives consultation.

TRINIDAD & TOBAGO

Trinidad & Tobago is a twin island republic located in the Caribbean with a population of 1.34 million. The economy is based on oil and gas production which accounts for around 40 per cent of the GDP.

The Ministry of Planning and Sustainable Development initiated a collaboration between the Government of the Republic of Trinidad &Tobago and the United Nations to conduct a Sustainable Development Goals (SDG) Mainstreaming, Acceleration and Policy Support (MAPS) Mission in Trinidad & Tobago.

SDGs and Trinidad & Tobago

This is to support integration and mainstreaming of the Sustainable Development Goals into Trinidad &Tobago's National Development Strategy 2016-2030, VISION 2030, keeping with the promise of the Government to develop a national strategy for Trinidad &Tobago focusing on national development in alignment with global SDGs. The objective of MAPS Mission will support prioritization and finalization ofa roadmap for SDGs implementation for Trinidad & Tobago, which will inform regarding implementation of the SDGs within the context of Vision 2030 and the medium-term plans for the various sectors ,which would inevitably follow the main areas of Economic development, Social development, Environmental development and Crosscutting issues.Successful implementation of the strategic initiatives for achieving the Vision 2030 goals will require emphasis on performance and measuring results. As such, the National Performance Framework (NPF) 2017-2020 has been developed, and is expected to outline the Key Performance Indicators (KPIs) to measure achievements of the Vision 2030 goals as set out in the NDS, and by extension, the indicators and targets pertaining to the SDGs.

ICT and the 21st Century Initiative

The main goal of the 21st Century Initiative is to accelerate government and public service transformation and thereby strengthen economic competitiveness and promote sustainable development. The vision of ICT 2030 is to foster unity and connectivity among the CARICOM Nations. This is in tangent with Trinidad & Tobago's National Development Strategy and VISION 2030's Information Communication Technology Goals, which envision a future where Trinidad & Tobago will have a modern and well-maintained ICT system. The goal aims to provide citizens with high speed, affordable broadband connectivitywith a robust and reliable ICT infrastructure that will boost national transportation and public utility

systems. It is expected that with this robust ICT system there will be enhanced integration of ICTs into education and business development and this will allow greater use of technology in homes. If adapted, the 21st Century Governance initiative poses to be a major milestone on the path to Vision 2030's goal of Trinidad & Tobago of having a modern and well-maintained ICT system.

Innovation and Development

This ICT driven model aims to promote a unified people first system with everything Government related at users' fingertips. According to the Caribbean Telecommunication Union (CTU), governments who sign on to this system will be characterized with citizen-centric, seamless, open, interactive and efficient processes, and will make effective use of information and communication technologies to deliver services to citizens, as well as internal and external clients.

ICT Framework 2017 – 2021

- ICT Vision: The National ICT goal is to support the National Development Plan, Vision 2030 (and the country's regional and international obligations).

- ICT Strategic Thrusts: Strategic enablers (out of which flow programmes and projects) for achieving the National ICT Vision.

- Supporting Ecosystem: Strategic elements to support and enable the successful implementation of ICT initiatives under the Plan.

- Guiding Principles: Underlying guiding factors for ICT implementation.

Conclusion

Having read the status of each country's position on the Sustainable Development Goals, it is quite clear that there are challenges yet advancement and progress is visible; still it is known that there's more that can be done. While some governments seek to advance its

country's position towards being sustainable, others are affected by politics and as such remains stagnant or fluctuates within a rise and fall period ,and have not been able to achieve the SDGs.

…"Those who fail to learn from history are doomed to repeat it."… - Sir Winston Churchill

A country must acknowledge its economic, social community and environmental position and take steps to make advancements. A national development plan is best for small or even large country to follow as a guideline for helping achieve its long-term goals as well as keeping in alignment with the global sustainable development goals. Science, Technology and Innovation are the core to each of the 17 goals set-out. Achieving each goal requires some form of technology and ICT framework; as such there is no independent goal for ICT even though it is essential to the achievement of each of the goal.

However, Science, Technology and Innovation is the key to each country's advancement and success. As such, it is fundamental in setting the core platform for the remaining goals to be networked in succession.

…"Every once in a while, a new technology, an old problem, and a big idea turn into an innovation."… - Dean Kamen

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Engineering for change

V

Sustainable Development Goals: Indicators and Monitoring

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Sustinable Development Goals: Indicators and Monitoring

Introduction

The Sustainable Development Goals (SDGs) is a set of 17 goals and associated 169 targets that 193 United Nation-member countries adopted in September 2015 to be achieved - by 2030. The Inter Agency and Expert Group on SDG indicator framework (IAEG-SDG) under the guidance of UN Statistical Commission has evolved - 232 – indicators for monitoring at the global level.

The SDGs focus to end poverty and hunger, – universalization of health, education for all and life-long learning, achieve gender equality, sustainable water management, ensure sustainable energy for all, decent work for all, resilient infrastructure, and reduce - inequality

The goals also include to create sustainable cities, ensure sustainable consumption and production, take action against climate change, conserve and sustainably use oceans and marine resources, reduce biodiversity loss, achieve peaceful and inclusive societies, and to revitalize global partnership for development.

The SDG indicators provide the backbone

for monitoring progress towards the SDGs at the local, national, regional and global levels -. A sound indicator framework will -translate SDGs and their targets into –action points -to help countries - to develop implementation strategies and fast track achievements of the SDGs.

AFGHANISTAN

Situation analysis

Owing to three decades of bad situation of war and conflict in Afghanistan, all the economic infrastructure were destroyed, human resource and skilled persons moved out from the country and most of the provinces didn't develop. Even hunger became prominent, especially in rural areas.

Data on Economic situation

Actual Challenges

- High poverty
- Lack of financial recourse for SDGs implementation
- Lack of –quality data

GDP	Agriculture share	Industries Share	Service share	Trade Taxes share	GDP/cap	Economy Growth rate	Inflation rate	Population growth rate	Poverty rate
138 M&	23%	21%	51.6%	4.2%	696$	3.6	7.19	2.03%	54%

- Lack of institutional capacity within the government
- Illiteracy
- Lack of public trust in governmental institutionsLake of security
- Lack of public awareness
- Gender inequality
- Lack of good Governance
- Corruption

SDGs indicators and monitoring

The Ministry of Economy is the lead ministry and focal point, and leads in coordinating, planning, monitoring, and reporting on SDGs on behalf of GoIRA. The Government has established aSDGs Executive Committee, a SDGs Secretariat, and technical working groups that are working since a year to adjust the global SDG targets and indicators to reflect Afghanistan's specificities. Afghanistan planned to work on 15 goals and more than 100 indicators due to the economical scenario. As for the goals and targets, the country needs to have sufficient assets or more financial support.

Tools of monitoring

1- Face-to-Face contact 2- Contacts' database 3- Website   4- Social media   5- E-newsletters 6- Promotional and outreach materials   7- Television, radio and print media 8- Conferences and exhibits 9- Bilateral meetings   10- Comparitive studies

Methodology of monitoring

The findings will be disseminated through regular email-groups, website, social media, press releases and news-letters. A quarterly monitoring and evaluation summary will be submitted to the ministry. The report will identify any other activities and their outputs to expose invulnerabilities and methodology to overcome them.

In- charge of monitoring

- Ministry of Economy as a focal point and secretariat
- Line ministries for coordinating
- Donor's and NGOs
- Media

Methodology of monitoring

Activity	Monitoring Method	Responsible Party
SDGs' Events	racking of participants lists and contacts, including media list, Informal and formal feedback through interviews Feedback Questionnaires Focus groups Newspaper article clippings	SDGs communications
Workshops and Seminars	Feedback Questionnaires	SDGs communications
Website	Monitor of website through hits; these would be monitored monthly	SDGs communications
Publications and other materials	Track publications (distribution lists), number of publications disseminated. feedback through surveys or focus groups	SDGs communications
Newspaper and Magazine Radio	Collect press clippings; screenshots of websites; evaluation of content and effectiveness Listenership, timing of broadcast, broadcast reach	SDGs communications

- Public
- Parliament house.
- Privet Sector

Conditions

A mechanism for collecting data and reporting on the specific output indicators for each activity will be developed and implemented with clearly specified responsibilities. Overall outcome indicators will form the basis for assessing the interim and long-term impact of the communication and advocacy.

KIRIBATI

Background

Kiribati consists of 33 coral islands atolls, spreading over some 3.5 million square km of the Pacific Ocean.

The total land area is 811 square km. Kiritimati is the world's largest atoll (388 square km), accounting for almost half of Kiribati's land area.

Kiribati's international competitiveness is limited by:

- Limited land and water availability for commercial use compounded by inherent infrastructure.
- Isolation from major markets, commanding higher price for exports.
- Small scale of production that increases fixed cost elements of major manufactured items, and.
- Vulnerability to climate change.

The Kiribati Development Plan is the national development strategy with 6 Key Priority Areas— Human Resource Development, Economic Growth and Poverty Reduction, Health, Environment, Governance and Infrastructure.

Kiribati, as part of the global community, has made commitments within global bodies such as the United Nations, as well as, within regional groupings such as the Pacific Islands Forum. Of particular importance is the commitment to the 2030 Agenda for Sustainable Development (SDGs) ; adopted by the UN General Assembly in September 2015.

Kiribati and Sustainable Development Goals

Localization of Sustainable Development Goals

Human Resource Development

According to KDP 2016 to 2019, a major challenge is the rapidly increasing population and high unemployment rate of youth and school leavers (estimated to be at 2,000 per year). The 2010 Population Census indicated 31 per cent unemployment while youth unemployment was 54 per cent. Female unemployment was 34 per cent and male unemployment was 28 per cent; and 62 per cent of young women and 48 per cent of young men were unemployed.

Goal 1: Improve the quality of education and training to provide students with skills and capability to progress to a productive future

Strategies: Lift enrolment and participation of 6 years olds in a Year substantially through promotion of successful early engagement in learning as a critical foundation for further learning; Establish a more explicit and sustained focus on skills needed for teacher to transform literacy and numeracy achievement levels in the Primary School, etc.

Key Performance Indicators

- The target for net enrolment rate for males and females in primary education to be 100%.
- The target for the Net Intake Rate (proportion of new entrants into class one primary) be 100% for males and females
- The target for the Survival Rate for Class 5 be 100% for males and females
- The target for the Transition Rate from Class 6 to Form 1 be 100% for males and females

Economic Growth and Poverty Reduction

While economic growth has fluctuated wildly in 2000s; by 2012 and 2013, real rate of GDP growth rose by a high 5.2 per cent and 5.8 per cent, respectively. This was followed by a solid growth of 2.4 per cent in 2014. GDP was US $940 million in 2018 and GDP per capita was $5,450. Poverty level has improved in 2018 due increased copra subsidy, legalization of minimum wages of labour force, fishing subsidy and increased in inflow of fishing licensing fees by foreign fishing vessels.

Goal 2: To enhance inclusive economic development through improving and increasing sustainable employment, financial inclusion for vulnerable groups, structural and fiscal reforms and accelerating private sector development

Strategies: Support policies to raise income level through varied means, including enhancing overseas employment opportunities to promote stronger growth in remittances; increasing domestic production, especially in the outer islands through strengthening existing industries and promoting new industries to boost domestic and external trade, etc…

Key Performance Indicators

- Real GDP growth to be at least 3% averaged annually
- Private sector employment growth to be at least 20% over the period of the Plan.
- Reduce by at least half the proportion of people of all ages living below national poverty line of 2006.
- Bring to zero the number of people living in extreme poverty; currently estimated at less than $1.25 a day.

Health

Kiribati enters the 2030 UN development agenda with unfinished business regarding many of its health-related Millennium Development Goal targets. Life expectancy at birth in 2013 was 64 for males and 69 for females.

Strategies: Strengthen initiatives to reduce morbidity, disability and mortality through ban on tobacco and alcohol, healthy eating and physical activities. In addition, prevention, detection and early treatment of cervical cancer, hypertension, heart disease, chronic lung disease, diabetes, etc…

Key Performance Indicators

Key Performance Indicatorsare declining adult mortality rate (30-69 years), reduced number of diabetes related amputations, declining mortality rate from road traffic injuries - number and rate of deaths per 100,000 population, declining adolescent birth -rate for 10-14 years etc…

Environment

The new environmental threats that have emerged include pollution of lagoons, build-up of solid waste, depletion of water, pollution of water from salinity and waste products, deforestation, depletion of inshore fisheries, etc… The Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management 2014-2023 (KJIP) has set out a holistic approach to integrate climate change and disaster risks into all sectors. The Plan aims to reduce vulnerability of the country to the impacts of climate change and disaster risks and to coordinate priorities for action.

Strategies; Reduce vulnerabilities to the impacts of climate change and disaster risks through more programmes designed to mitigate climate change and more programmes implemented to assist in adaptation to climate change. Increased measures for the adaptation and mitigation of the effects of climate changes include"soft" methods such as the planting more mangroves; Food and nutrition security through increasing crop and livestock diversity and increased contribution of agriculture to household income.

Indicators

- Programmes for mitigation of climate change and adaptation increased to climate change.
- Increased number of mangrove plantings.
- Crop production, diversity and livestock numbers increased.
- In 2016, finalization of a new Food and Nutrition Security Policy

Governance

The quality and standards of Ministry services requires improvement to protect and enhance dignity, rights, safety and welfare of Kiribati people. Strong active families and communities, healthy confident young people and children, violence- free communities, and access to services for the vulnerable are important for the social growth of the nation. Obligations for the reporting and implementation of international conventions that have been ratified need to be met.

To strengthen national governance system to promote principles of good governance, including accountability, transparency, and inclusiveness.

Strategies

Review Incorporated Societies Act and Religious Bodies Registration legislation and regulations to build a strong NGO sector and support to faith- based organizations;Continue to actively monitor implementation and reporting of Kiribati's obligations under ratified international conventions including the Human Rights Convention, the Convention on the Elimination of all forms of Discrimination against Women (CEDAW), the Convention on the Rights of Persons with Disabilities, the Convention on the Rights of the Child, and the Convention Against Corruption; and finalization and launching of the Kiribati National Disability Policy.

Key Performance Indicators

- Increased training for Local Council officers.
- Review of the Village Banks to provide micro finance to the outer islands.
- Review of the Incorporated Societies Act and Religious Bodies Registration legislations.
- Review of the National Youth Policy.

Infrastructure

Challenges from more frequent king tides and storms owing to changing climate patterns have increasingly impacted coastlines, causing physical damage to assets and economic losses to Government and communities. A priority goal, therefore, is more strategic coastal protection initiatives including identification of vulnerable areas and introducing robust seawall designs to withstand impacts of rising seas.

Strategies: Implement environmentally sustainable causeways in both the urban and the rural areas, including completion of new causeway between Betio Village and Bairiki Village in the capital of Tarawa. Completionof roads and upgradation of airfields in outer islands. Adoption of strategic coastal protection initiatives including identification of vulnerable areas and introduction of robust seawall designs.

Performance Indicators

- Completion of the new causeway between Betio and Bairiki.
- Complete roads and airfields upgrading on 8 outer islands under Phase 1 and Phase 2 by the end of 2019.
- Provide technical support for the development and improvement of infrastructure on Kanton Islands.
- Increased number of strategic coastal protection initiatives, including application of mass concrete seawalls.
- Completion of the South Tarawa Sanitation Improvement Sector Project

Monitoring and Evaluation

The National Statistics Office is responsible for collecting all statistical information from Government Ministries to measure the progress that has been achieved in fulfilling the National Development Goals aligned with the Sustainable Development Goals. The report has to be developed every four years based on the statistical information to inform the Government and the UN on the achievement of the Sustainable Development Goals.

NEPAL

Introduction

Nepal, the multiethnic, multilingual, multi-religious country, is defined as a new constitution in 2015. Politically, just in 2017, three levels of government as Federal Government, Province Government and Local government, including 7 provinces and 753 local governments, are reformed. In the elections of 2017, nearly 40,000 officials were elected to local, provincial and federal parliaments. The people of Nepal now expect the nation to singularly expedite the agenda of all-round development. Therefore, this new political and economic era in Nepal also agrees with the ambition of the global community to implement the Sustainable Development Goals (SDGs).

The National Planning Commission (NPC) is the designated agency in the Government for planning, budgeting, coordinating and monitoring implementation of the SDGs. It has published national report on SDGs. This document envisions building a just and prosperous Nepal by 2030. The year 2030 coincides with the end date of the Sustainable Development Goals (SDGs). While all the 17 SDGs and 169 targets are legitimate development objectives seen through a global lens, a resource-strapped country like Nepal needs to prioritize, localize and motivate a bottom-up path towards greater progress. Nepal needs a home-grown roadmap that is consistent with the SDGs, yet rooted in quintessentially Nepali events and milestones.

Challenges and Issues

All stated the key functions and activities to be done to achieve the SDGs, although every action has key challenges. Following are the major key challenges for achieving the SDGs.

- Nepal relatively underdevelopment is somewhat of a paradox with compelling potentials of a uniquely attractive country being under-utilized because of politico-institutional weaknesses.

- Over the past decade, due to unemployment, Nepal has fueled temporary migration on a large scale affecting the Nepali economy.

- Nepal is prone to disasters such as earthquakes, floods, landslides, avalanches, fires, and outbreak sof pandemics.

- Due to the devastation of earthquake in 2015, destroyed cultural and heritage sites have not been reconstructed yet.

- It takes time to institutionalize the Province Government and Local government.

- It is difficult to internalize and track SDGs at the sub-national level and localize and deliver indicators in the local governments, especially related to basic social services.

- In this situation, inequality and discrimination based on gender, caste/ethnicity, and educations are the key challenges achieving the goals.

Current Strategy

Nepal is envisioned as an enterprise-friendly middle-income country by 2030, peopled by a vibrant and youthful middle-class living in a healthy environment; with absolute poverty in the low single digits and declining.

Well before 2030, Nepal would graduate from the list of Least Developed Countries (LDC) ;as defined by the United Nations. Building on this, Nepal would have to strive to meet most, if not all, of the Sustainable Development Goals (SDGs) by 2030. It will have

played an important role in steering regional economy towards greater reliance on clean sources of energy, while combating climate change.

These three sectors – clean energy, agriculture and tourism – carried along by ambitious but realistic policy decisions would help move Nepal towards a job-creating low-carbon economy. In addition, Nepal will also need to build upon additional sources of growth that are game-changing in nature. Reducing poverty, promoting agriculture, tourism, industrial and development infrastructure, achieving economic growth, insuring social security and gender/ethnic equality are the key strategies achieving SDGs.

Monitoring Agency

NPC's role is crucial in institutionalizing the culture of using evidence in the SDG-friendly planning and policy- making process. It conducts systematic monitoring and evaluation of SDGs collaborating with other partners and producing evaluation-based evidence. The monitoring and evaluation of SDGs is done through collective efforts of the government (federal-province-local), private sector, civil society organizations and external development partners.

Of the 19 different UN agencies currently working in Nepal, 13 are involved directly in SDGs implementation and monitoring. Their work in strengthening the monitoring and evaluation systems around the SDG agenda would lend credibility and international acceptance. Partnering with multilateral and bilateral agency is important for mobilizing more resources for SDGs and monitoring effectively. Nepal is a member of SAARC which works to address SDGs collectively. BIMSTEC is another regional platform to which Nepal is party and where SDG related agenda must find a place. Among the regional cooperation, South-South Cooperation is also one of the international agencies for sharing ideas, cooperating and monitoring on global agenda SDGs.

Tools of Monitoring

As the government is the major organ to implement policies, indicators and measures have been developed for their successful implementation. Some of these can be listed as: National SDGs report, Conduction of Local Government Act, 2017, program inputs for the localization, relevant policies and legal framework, formation of Implementation guidelines, baseline data to be developed regarding the implementation of the policies, maintenance of Periodic/ annual reports, HDI report and Monitoring and Evaluation surveys.

NIGERIA

Background

The Government has launched the Economic Recovery and Growth Plan (ERGP) as a Medium-Term Plan covering the period 2017-2020 to restore growth while leveraging country's abundant human and natural resources. The Plan, founded on the principles of tackling constraints to growth; leveraging power of the private sector and promoting national cohesion and social inclusion, aims at a triad of objectives including restoring growth; investing in people and building a globally competitive economy. The strategy outlines programmes and initiatives to address the economic, social and environmental dimensions of development and in this way, capture the spirit consistent with the aspirations of Agenda 2030 and the Sustainable Development Goals (SDGs). The Plan also provides a framework for harmonization and coordination of strategic Federal level policy initiatives aimed at economic recovery and the achievement of the SDGs and those at the sub-national (State and Local Government) level where the most critical development challenges reside and which in turn, suffer from a lack of financial resources and weak institutional capacities.

Challenges

These encountered during monitoring are as follows.

- lack of sustained data at the state and local levels;
- continuous training of the statistical staff across all levels is necessary;
- non- availability of well-focused templates ,which are easily understood;
- work with metadata developed for global and national indicators.
- Furthermore, there is a need to adopt data internationally comparable; hence the need to adopt internationally agreed standards.
- Successful tracking and reporting on the implementation of the Sustainable Development Goals would require capacity building efforts and mobilization of required resources
- Overly -reliance on the Oil and Gas Sector; dwindling agricultural production and productivity as well as limited value addition in the agriculture sector
- Infrastructural Deficit and Technological Gaps
- Humanitarian Crisis
- Weak Public-Sector Institutions
- SDGs Data Availability and Accessibility

Programmes or Current Strategies

- Nigeria has put in place appropriate policy and programme initiatives to be contributing extensively towards achieving some of the SDGs targets and indicators.
- Conditional Cash Transfer (CCT) Programme
- Home-Grown School Feeding Programme (HGSFP)
- Government Enterprise and Empowerment Programme (GEEP)
- N-Power Programme
- Anchor Borrowers' Programme (ABP)
- Leadership Opportunities for Women

- Private Sector Investments: Implementing a roadmap to increase Private Sector Investment in Tourism, Entertainment & Sports;
- Technology and Innovation: Creating high-technology innovation hubs to support growth in the Digital & Technology sub-sector;
- Inauguration of partnership Groups on SDGs: Various partnership groups have been created by the OSSAP-SDGs; including a Private Sector Advisory Group (PSAG), the CSO Group, and the Donors Forum on SDGs. All are geared towards building effective partnerships for the implementation of SDGs;
- Establishment of the IDPs Forum on SDGs: As part of the strategies to ensure inclusiveness in the implementation of the SDGs, Internally Displaced Persons Forum has been created. It is meant to generate information on the IDPs as well as create viable opportunity for responding to their needs.

Agencies Involved

Nigeria has demonstrated strong political commitment for national ownership and implementation of SDGs. As part of this commitment, President Muhammadu Buhari appointed a Senior Special Assistant on the SDGs (SSAP-SDGs) with full mandate of coordinating the SDGs-related interventions; tracking of national progress; reporting on performance as well as managing operational processes for results. The Office of the SSAP (OSSAP-SDGs) is located within the Office of the President. The Government has also deployed seasoned public servants and professionals to the OSSAP-SDGs to ensure readily available multi-skills, talent-building as well as a reservoir of institutional memory for subsequent lessons and knowledge transfer.

The National Bureau for Statistics (NBS) collaborated with the State Statistical Agencies for effective data collection through the

administration of data templates centred specifically on the SDGs indicators. To ensure success of the exercise, some field staff was assigned to the Federal MDAs in FCT and other states of the federation. Other field staff was deployed to the state MDAs, including the FCT.

PHILIPPINES

Philippine Initiatives in the Implementation and Monitoring of the Sustainable Development Goals (SDG)

The Philippines is conducting national-level SDG mainstreaming which includes building awareness, integrating SDG in plans and programmes, SDG indicator development and review of institutional mechanisms.

Building awareness is important in monitoring and achieving SDGs. In the Philippines, briefings on the SDGs for different national government agencies, universities and non-government organizations are being done currently. Theme and sector-focused fora and workshops are also being conducted all over the country.

The successful implementation of SDGs require their inclusion and mainstreaming into the national policies, plans and strategies. The SDGs being integrated in the development plans and programmes in the Philippines like in long-term vision dubbed as the "Ambisyon Natin 2040" represents the collective long-term vision and aspirations of the Filipino people for themselves and for the country in the next 25 years, in the Philippine Development Plan (PDP), Public Investment Program (PIP), Budget Priorities Framework, Sectoral Plans and in the Philippine Statistical Development Program (PSDP).

The SDG indicators were also developed. At the global level, the Philippines have already accomplished the questionnaires for the development of the SDG indicator framework. The country also actively participated in various international fora on SDGs. Most importantly, the Philippines served as Co-chairperson of the United Nations (UN) Interagency Experts Group on SDGs (IAEG-SDGs).

At the national level, the learnings on generating and monitoring the Millennium Development Goals (MDG) were considered. Policy updates on SDGs monitoring were also being developed as well as continuously updated on the identification, assessment and prioritization of SDG indicators.

Conducting of technical workshops for the development of national-level indicators for the SDG was started since 2015. The National Economic and Development Authority (NEDA) and the Philippine Statistics Authority (PSA), with funding support from the United Nations Development Program (UNDP), spearheaded the conduct of the first technical workshop on SDG indicators in October 2015 where participants from government agencies, civil society, academe, and technical representatives from NEDA, PSA and the UN Country Team discussed on whether the initial list of SDG indicators is relevant to the development objectives of the country. Also delibrations were on indicators notincluded in the list but being relevant or crucial for programme planning, and core indicators ,which should be monitored among others.

Philippine SDG Indicators for Monitoring

While the Philippine Statistical System (PSS) has been touted as one of the world's best, the Philippine Statistics Authority (PSA) is cognizant of the data gaps needed to be addressed, especially where the Sustainable Development Goals are concerned.

Out of the 169 targets and 232 indicators in the SDG, only 97 targets and 155 indicators were included in the initial list of SDGs for monitoring in the Philippines; 102 indicators in the list are readily available for the country to measure its progress. These are the indicators with established methodology and regularly collected— 28 are proxy indicators and 25 are supplemental indicators.

In terms of the data source or the manner in which the SDGs data are collected, 66 per cent are administrative data, 23 per cent are collected by surveys, 5 per cent are both from administrative data and survey, and 6 per cent are through administrative data and census.

Moreover, 66 per cent of the initial list of the indicators has regional disaggregation and 42 per cent have provincial disaggregation. Meanwhile, majority of the indicators or 84 per cent have already sex disaggregation.

Not all SDGs data are generated by the Philippine Statistics Authority (PSA); it is only for 33 per cent. In fact, the majority or 66 per cent are collected by other government agencies of the country and 1 per cent is from other sources.

Most importantly, 68 out of the 155 indicators are already in the Philippine Development Plan (PDP) Results Matrix. The PDP Results Matrix contains statements of the results to be achieved (goals, outcomes, and outputs) with corresponding indicators, baseline information, annual and end-of-plan targets, and responsible agencies. Moreover, 81.4 per cent of these indicators are with baseline data to monitor country's progress.

But meeting the country's SDGs commitments will require not only greater disaggregation in terms of the available data but a macro approach in terms of improving
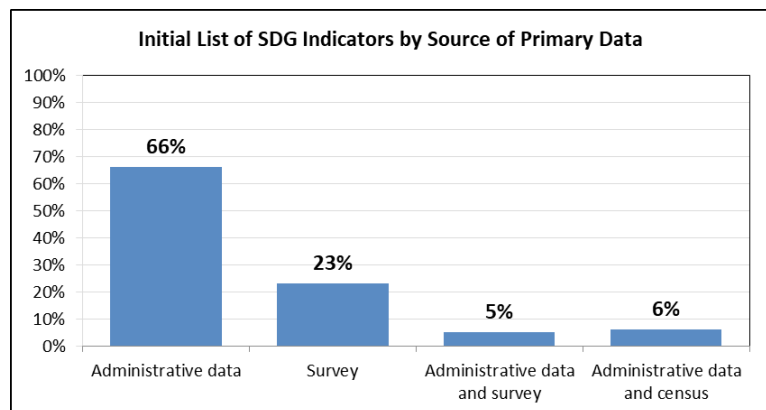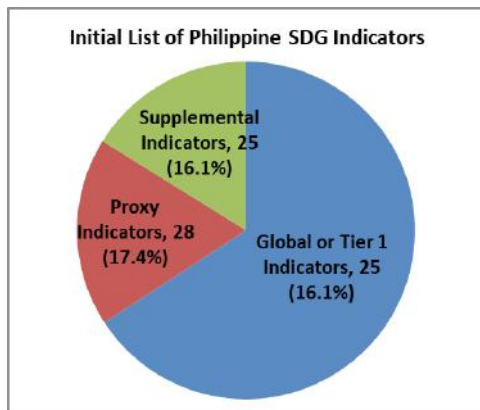
the entire Philippine Statistical System. And this will not come cheap.
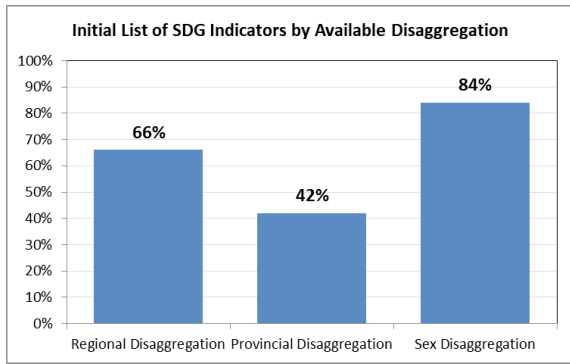
The need to invest in statistics is imperative. The Philippines Statistics Authority's effort is good but to realize the country's SDG dreams, it must invest in statistics. If the country is serious in monitoring its progress in terms of achieving the SDGs, then the government should allocate funds for statistics. Local and international experts agree that quality statistics is the key to monitor world's progress. Meeting these ambitious goals is not simple. All must work together to make the 2030 Agenda a reality ;leaving no Filipino behind.

Philippine Efforts in Addressing the Gaps and Challenges

The country is currently formulating the SDG Implementation Roadmap. It is a framework on the needed actions, resources, responsibilities and partnerships to ensure success of SDGs implementation.

Institutional arrangements also are being improved currently. A dedicated high-level committee will be created to oversee the coordinated implementation of SDG-related policies and programmes and to monitor progress vis-à-vis targets until 2030.
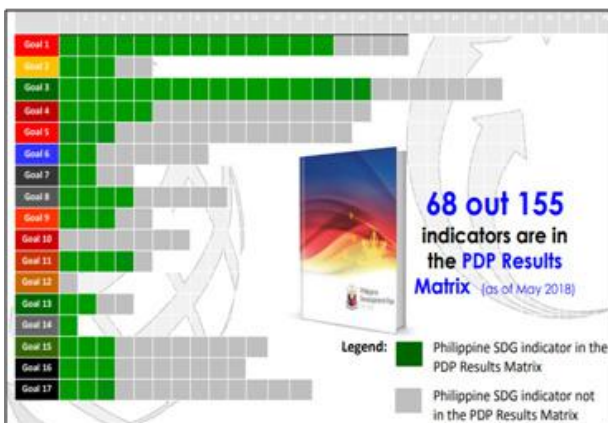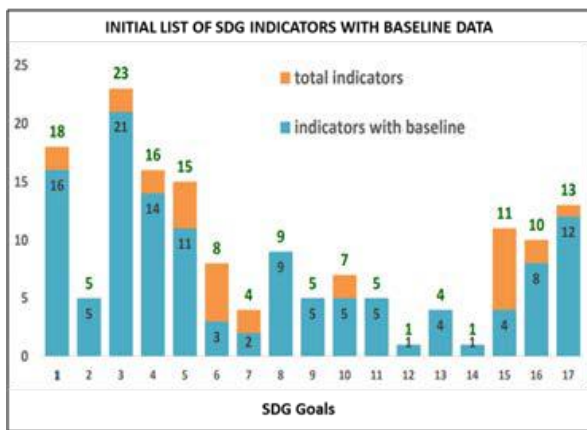
The Philippines also continues to develop SDGs indicators especially those which are relevant to national priorities. Furthermore, the

Initial List of Philippine SDG Indicators

Initial List of SDG Indicators by Source of Primary Data

Initial List of SDG Indicators by Available Disaggregation

country is trying to improve the availability of SDGs data with disaggregation.

The country also continues to advocate and build ownership of the SDGs. Developing a strategic Communication Plan (part of the roadmap)is to raise awareness, create a knowledge repository, ensure coherent messaging and advocacy, connect communication platforms, and mobilize broad support.

INITIAL LIST OF SDG INDICATORS WITH BASELINE DATA

68 out 155 indicators are in the PDP Results Matrix (as of May 2018)

Legend: ■ Philippine SDG indicator in the PDP Results Matrix
□ Philippine SDG indicator not in the PDP Results Matrix

Lastly, the country is strengthening capacities of local leaders and communities, statistical agencies and concerned institutions; and is preparing a Financial Plan (as part of the Implementation Roadmap).

SRI LANKA

Since the endorsement of the 2030 agenda, Sri Lanka has taken several initiatives to facilitate and advance implementation of SDGs. One such initiative is the establishment of a parliamentary select committee on sustainable development to facilitate implementation of SDGs for coordinating activities of the parliament with respective ministries and for providing expert advice. In addition the Ministry of Sustainable Development, Wildlife and Regional Development has been established in 2015 as the line ministry responsible for the subject of sustainable development in Sri Lanka. It acts as the focal point for coordinating, facilitating and reporting on the implementation of SDGs in Sri Lanka. Another significant step is the enactment of the sustainable development Act No.19 of 2017 which has laid the foundation for a well organized institutional mechanism to implement SDGs utilizing the existing system of public institutions.

The current policy framework of the country further reflects the country's commitment to sustainable development. Sri Lanka's strategic development framework , reflected through its long- term plan 'VISION 2025',medium term plan 'Public investment program 2017-2020' and the 'Blue-green' Budget for 2018 align significantly with the SDGs. Above three policies have significantly integrated the three key dimensions of sustainable development — Economic, Social and Environmental.

Involvement of Different Sectors and Levels of Government in SDGs

The ministry of Sustainable Development, Wild Life and Regional Development has taken initiatives towards identifying roles and

Figure 3.1: Design of Sri Lanka's National Policy Framework
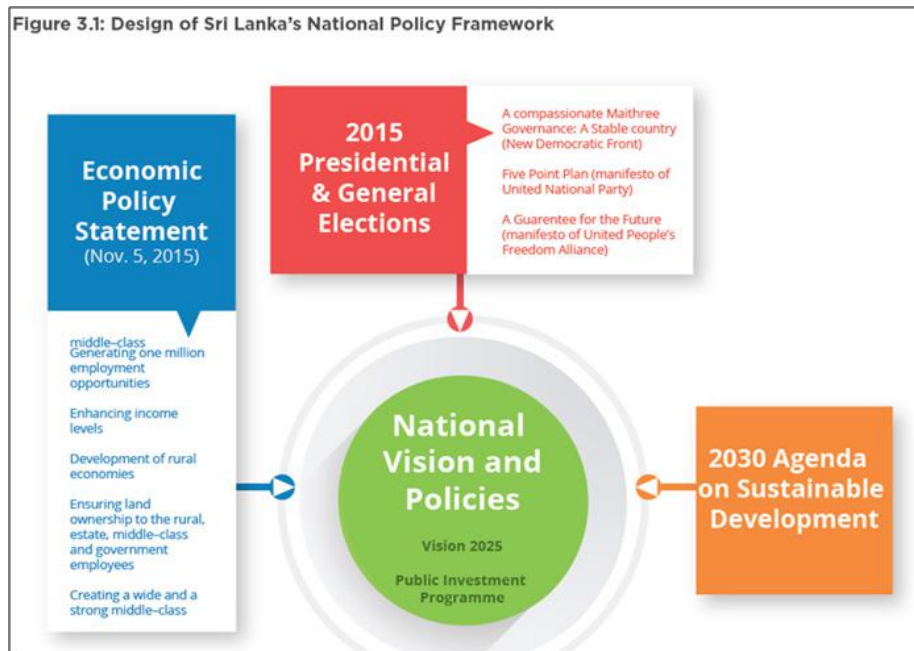
responsibilities of various government agencies in implementing the SDGs and recognizing linkages, overlaps and gaps in the institutional framework. Efforts of the ministry were complimented by the joint efforts undertaken by the key agencies.

- Mapping experiences undertaken by the National Panning Department to integrate SDGs in the development agenda prioritize SDGs for implementation and to localize SDGs in sectoral policies in association with the Ministry.

- Assessment undertaken by the Department of Census and Statistics to develop suitable indicators and to identify baselines for measuring the progress of SDGs in Sri Lanka.

- Participation in the regional review of National evaluation systems and capacities for evaluating progress towards the Sustainable Development Goals through Sri Lanka case study by Department of Planning ,Management and Monitoring ,CNICEF, and UNDP.

Targets of SDG Prepared by UN

To proceed with the alignment exercise and

to develop on SDG profile of Sri Lanka, SDG targets were mapped against the targets of the PIP 2017-2020 as illustrated in the below table. The RIA has identified 16 targets out of the 169 (9%) not applicable /not relevant to country policy development, or related to governance issues that are to be solved at the regional level global level. Further, 44 targets through relevant to Sri Lanka have been identified as not aligned (26%).

NPD has also undertaken a similar analysis, albeit using a different methodology, to understand the alignment of national policies with the SDGs using PIP 2017-2020 as the base document. As shown in above table first, the key areas of public investment were mapped against the SDGs to obtain a broad overview on the SDG profile of the country. As the following table shows, all the 17 SDGs have been covered by at least one thematic area in the PIP document implying a good coverage of the SDGs in PIP 2017-2020.

Monitoring and Evaluation System of SDGs
The DPMM has established a proper monitoring mechanism to capture regular updates from all departments, projects through respective project

Table 3.2: Mapping SDGs to Key Areas of Public Investment

Goal	SDGs	Number of targets			% Alignment
		Total	Applicable	Aligned	
1	No Poverty	7	6	6	86%
2	Zero Hunger	8	7	5	63%
3	Good Health and Well-being	13	13	9	69%
4	Quality Education	10	10	10	100%
5	Gender Equality	9	9	6	67%
6	Clean Water and Sanitation	8	8	7	88%
7	Affordable and Clean Energy	5	5	5	100%
8	Decent Work and Economic Development	12	11	10	83%
9	Industry, Innovation, and Infrastructure	8	8	8	100%
10	Reduced Inequalities	10	7	6	60%
11	Sustainable Cities and Communities	10	9	9	90%
12	Responsible Consumption and Production	11	10	7	64%
13	Climate Action	5	4	4	80%
14	Life below Water	10	9	3	30%
15	Life on Land	12	12	4	33%
16	Peace, Justice, and Strong Institutions	12	12	5	42%
17	Partnerships for the Goals	19	13	5	26%
		169	153	109	64%

Source: MAPS Approach Supporting SDG Implementation in Sri Lanka, Government of Sri Lanka and UN Country Team in Sri Lanka, January 2018

directors and line ministries. There are plans to strengthen this mechanism by establishing a web- based monitoring information system under the DPMM which will facilitate online reporting and review.

In addition, DPMM has taken steps to mainstream evaluation by formulating the National Evaluation Policy (NEP) for Sri Lanka, which is a long awaited policy initiative. Currently the final draft of the NEP has been completed through a wide stakeholder consultation process. It was published in newspapers and in the official website of DPMM in three languages to have public comments. The NEP will be in operation in 2019. The GoSL expects to develop the NEP as a three-year rolling plan which will capture outcomes of development projects and programmes and share lesions for future planning development in line with SDG agenda.

Besides the steps have been taken by the DPMM to strengthen the monitoring and evaluation procedures to be used for the implementation of the SDGs. The following measures have already been taken by the NPD and Auditor General's Department.

• The NPD has requested all public agencies to identify the SDG targets applicable to their respective subject areas.

• The Auditor General's Department of Sri Lanka has initiated steps towards taking SDGs into the purview of the government auditing process by sending a questionnaire to enquire about the SDG involvement of all public agencies.

The Finance Commission (FC) has developed a structural framework for reporting the development activities carried out by provincial councils using the central government funds, allocated through the FC under relevant SDG targets.

Challengers and Measures Adopted

Sri Lanka faces several challenges with regard to the implementation of SDGs, particularly in the areas of financing, technology development, capacity -building, trade and investments, as well as systemic issues such as policy and institutional coherence, multi-stakeholder partnerships, and data monitoring and accountability. In terms of financing, Sri Lanka's resource mobilization efforts need strengthening to improve domestic capacity for tax and other revenue collection; and measures are already underway to simplify tax structure while broadening tax base. In recognition of the need to shift towards a more innovative, knowledge-based economy, the Government has proposed several measures to improve the technology and digitalization sectors in Sri Lanka. The Government has also taken several efforts to raise awareness on SDGs and build capacity of stakeholders involved in planning, implementation and monitoring of the SDGs.

Conclusion and Recommendations

- Now all the countries are preparing to work on Sustainable Development Goals and to achieve them in 2030. Different countries have different challenges and they are adopting different measures to overcome the challenges according to their economic environmental and social conditions.

- Although UN introduced 169 targets and 232 indicators for 17 goals, all the countries could not adopt them. It is dependent on the economic environmental and social conditions of the country as well as availability of data. So each country should identify what are the targets -relevant for it and then prepare indicators for the targets.

- The goals and targets of the 2030 Agenda for Sustainable Development will guide development policy action over coming years in the pursuit of a revitalized Global Partnership for Sustainable Development. The eradication of poverty is among the most prominent of the Sustainable Development Goals, and the challenge of poverty eradication is the greatest for the least developed countries, where almost half of the population still lives in extreme poverty. This is why UNCTAD argues that the LDCs are the battleground where the Sustainable Development Goals would be won or lost.

- The world is faced with challenges in all three dimensions of sustainable development—economic, social and environmental. More than 1 billion people are still living in extreme poverty, and income inequality within and among many countries has risen; at the same time, unsustainable consumption and production patterns have resulted in huge economic and social costs and may endanger life on the planet. Achieving sustainable development will require global actions to deliver on the legitimate aspiration towards further economic and social progress, requiring growth and employment, and at the same time strengthening environmental protection.

- Sustainable development will need to be inclusive and take special care of the needs of the poorest and most vulnerables. Strategies need to be ambitious, action-oriented and collaborative, and to adapt to different levels of development. They will need to systemically change consumption and production patterns, and may entail, inter alia, significant price corrections; encouraging preservation of natural endowments; reducing inequality; and strengthening economic governance.

- Implementation of indicators is affected by politico-institutional weaknesses.

- Due to unemployment, it has fueled temporary migration on a large- scale, affecting country's economy.

- Nepal is prone to disasters such as earthquakes, floods, landslides, avalanches, fires, and outbreaks of pandemics.

- SDGs indicators are not yet institutionalized and localized.
- It is difficult to internalize and track SDGs at the sub-national level and localize and deliver the indicators in the local level.
- In this situation, inequality and discrimination based on gender, caste/ethnicity, and educations are the key challenges achieving the goals.

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VI

Sustainable Oceans and Blue Economy

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Sustainable Oceans and Blue Economy

Introduction

Goal 14: Conserve and sustainably use oceans, seas and marine resources for sustainable development.

The UN General Assembly adopted resolution 70/226 on December 22, 2015 in which it was decided to "convene the high-level United Nations Conference to Support the Implementation of Sustainable Development Goal 14. The 21st century has been defined by threats of marine and nutrient pollution, resource depletion and climate change; all of which are primarily caused by human actions.

To address the adverse effects of overfishing, acidification and pollution, and to achieve Sustainable Development Goals, it is imperative that we develop a holistic strategy, and implement an effective plan.

Goal 14 Targets

- By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

- By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including strengthening their resilience, and to take action for their restoration r to achieve healthy and productive oceans

- Minimize and address impacts of ocean acidification through enhanced scientific cooperation at all levels

- By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices, and implement science-based

The Blue Economy is sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health.

The Blue Economy encompasses many activities...

RENEWABLE ENERGY
Sustainable marine energy can play a vital role in social and economic development.

FISHERIES
Marine fisheries contribute more than US$270 billion annually to global GDP. More sustainable fisheries can generate more revenue, more fish and help restore fish stocks.

MARITIME TRANSPORT
Over 80% of international goods traded are transported by sea, and the volume of seaborne trade is expected to double by 2030 and quadruple by 2050.

TOURISM
Ocean and coastal tourism can bring jobs and economic growth. Coastal Least Developed Countries and Small Island Developing States receive more than 41 million visitors per year.

CLIMATE CHANGE
The impacts of climate change on oceans—rising sea-levels, costal erosion, changing ocean current patterns, and acidification—are staggering. At the same time, oceans are an important carbon sink and help mitigate climate change.

WASTE MANAGEMENT
80% of litter in the ocean is from land-based sources. Better waste management on land can help oceans recover.

To learn about other aspects of the blue economy, visit www.worldbank.org/oceans

WORLD BANK GROUP

management plans to restore fish stocks in the shortest possible time, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics
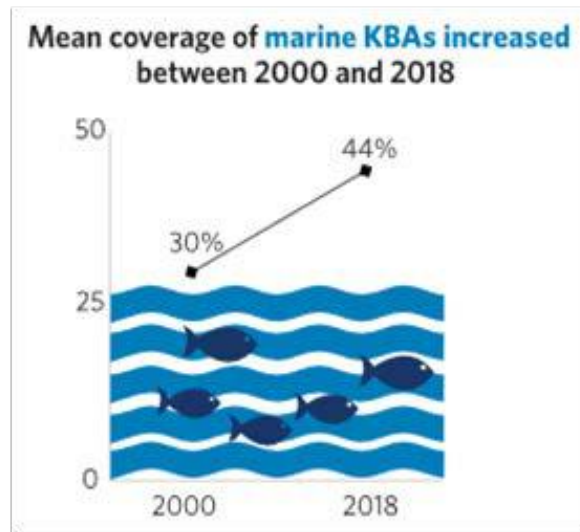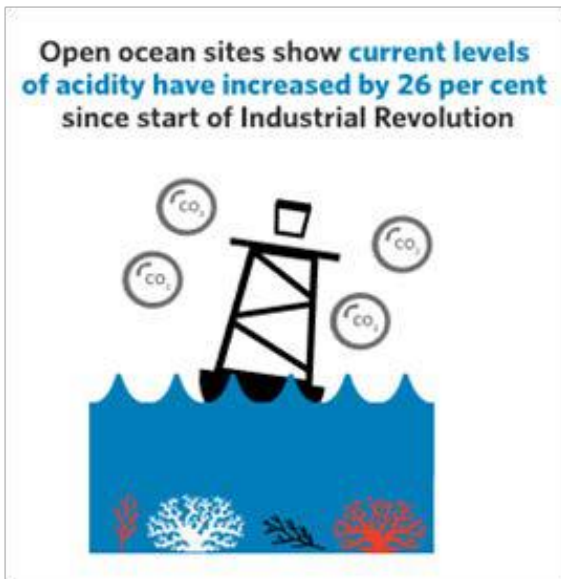
- By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international laws and based on the best available scientific information

- By 2020, check on certain forms of fisheries subsidies which contribute to overcapacity and overfishing— eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies— and recognize appropriate and effective special and differential treatments for developing and least developed countries, which should be an integral part of the World Trade Organization fisheries subsidies negotiation

- By 2030, increase the economic benefits to Small Island Developing States and least developed countries from the sustainable use of marine resources through sustainable management of fisheries, aquaculture and tourism

- Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology to improve ocean health and to enhance the contribution of marine biodiversity for the development of developing countries, particularly Small Island Developing States and least developed countries

- Provide access for small-scale artisanal fishers to marine resources and markets Enhance conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want

The "blue economy" promotes economic growth, social inclusion, and preservation or improvement of livelihoods while pursuing environmental sustainability of oceans and coastal areas.The objective is to ensure that there is a connection between the utilisation of marine resources for economic advancement and maintenance and improvement of the ocean, coastal and marine resources and ecosystems.

To contextualise the global status, the latest report by UN on SDG 14 has been referred.

- The global share of marine fish stocks that are within biologically sustainable levels declined from 90% in 1974 to 69% in 2013.

- Studies at Open Ocean and coastal sites around the world have showed that current levels of marine acidity have increased by about 26% on an average since the start of the Industrial Revolution. Moreover, marine life is being exposed to conditions beyond previously experienced natural variability.

- Global trends point towards continued deterioration of coastal waters due to pollution and eutrophication. Without concerted efforts, coastal eutrophication is expected to increase in 20% of large marine ecosystems by 2050.

- As of January 2018, 16% (or over 22 million square kilometres) of marine waters under national jurisdiction—that is, 0 to 200 nautical miles from shore—have been covered by protected areas. This is more than double of the 2010 coverage level. The mean coverage of marine key biodiversity areas (KBAs) ,which are protected, also increased from 30% in 2000 to 44% in 2018.

Water is very essential source of life on the planet, and 70 % of the planet is covered with water. Not only does water sustain life, but from oceanwe obtain food and energy; and many countries economies depend on ocean resources. Since the world population is projected to be more than 9 billion by 2050;

Open ocean sites show **current levels of acidity have increased by 26 per cent** since start of Industrial Revolution

Mean coverage of **marine KBAs increased** between 2000 and 2018

countries around the world would require new resources from a finite amount of space to meet soaring demand. Our climate and weather are being regulated by Ocean. Half of the oxygen is being generated by ocean that we breathe. ocean contains 80% of Earth's life and carries more than 90% of internationally traded goods.

Experts estimate that one billion people are dependent on fish protein for their livlihood, and some small island states depend almost entirely on fish according 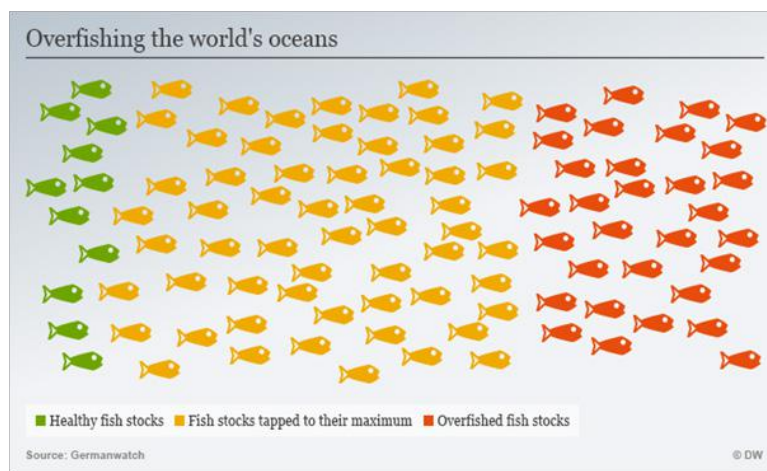to the World Health Organization. About 90% of world's fish stocks have already been exploited to the maximumaccording to United Nations reports.
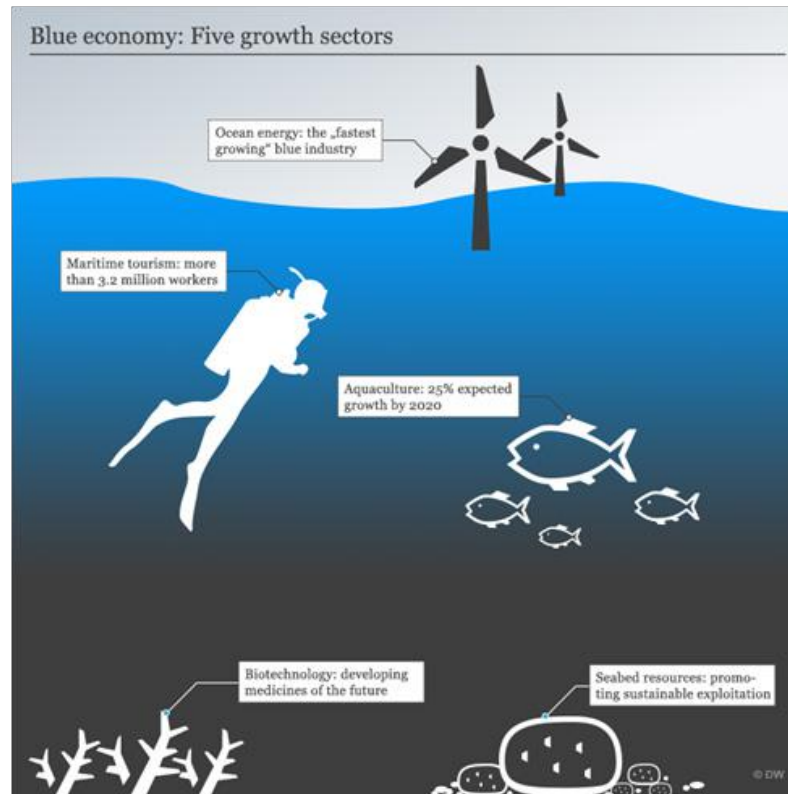
The blue economy also supports other growing sectors that can promote development and sustainability.

Strategic Pillars

The four strategic pillars which support the advancement of the blue economy are as follows.

• Sustainable and inclusive growth and development.

Overfishing the world's oceans

■ Healthy fish stocks ■ Fish stocks tapped to their maximum ■ Overfished fish stocks

Source: Germanwatch   © DW

Blue economy: Five growth sectors

Ocean energy: the „fastest growing" blue industry

Maritime tourism: more than 3.2 million workers

Aquaculture: 25% expected growth by 2020

Biotechnology: developing medicines of the future

Seabed resources: promoting sustainable exploitation

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- Reducing the risk of over exploitation and risky methods of extraction/usage of the ocean's resources.
- Enhancing the welfare of coastline communities in terms of economic opportunities and social protection.
- Ensuring resilience of countries to natural disasters and the impact of climate change.

To gain a deeper appreciation of global best practices and challenges, cases in the Caribbean, Africa, and additional regions have been explored.

THE CARIBBEAN

Around 41 million people live within the Caribbean region; of which 18.4% contribute to the total GDP of the ocean economy. Climate change remains one of the most pressing issues facing Small Islands Developing States (SIDS), in the Caribbean with following staggering figures:

- 85% of waste-water released into the Caribbean is untreated, affecting 75% of the region's reefs; which are the breeding areas for fish.
- 790,000 tonnes of plastic is projected to enter the Caribbean by 2025.

A number of blue economy initiatives can be highlighted; their scope and scale remains below the potential, mainly as the blue economy has not been formally recognised as an important economic driver. Leveraging a blue economy strategy will allow Caribbean countries to drive more effectively the triple bottom- line of sustainable development— growing the economy, protecting the environment, and advancing social well-being. A blue economy strategy that forays into new growth sectors

and expands existing ones in a sustainable manner would facilitate faster economic growth, and can usher in a new Caribbean economic development paradigm; which is more diversified and less vulnerable to external shocks. The effective adoption of the blue economy concept requires not only a focus on the specific activity associated with utilising the resource, but also, mainstreaming ocean sustainability into economic modelling and decision-making. To support the blue economy approach and investment, appropriate policies, legislation, incentives and infrastructure need to be accommodative to facilitate transition. That is, the policy mix, legislation and regulation, processes and other governance structures should align with the strategy to maximise economic potential and value addition.

AFRICA

Africa is yet to tap into maximum utilisation of BE, which can create wealth and jobs and boost food security. Major challenge that hinders Africa to exploit BE is lack of technological advancement. However, with platforms, such as the SSC, it is clear that through technological transfer it is possible to creat wealth from BE. The realisation of the immense potential of BE has led many African countries to expand its fisheries, aquaculture and mariculture and pharmaceutical and chemical industries.

The African Union has launched its 2050 Integrated Maritime Strategy in a bid to provide a broad framework for the protection and sustainable exploitation of Africa's marine resources. At its heart lies the creation of a Combined Exclusive Maritime Zone of Africa (CEMZA), a common maritime space intended to boost trade, protect environment and fisheries, share information and boost border protection and defence activities.

There is a vast potential that can be realised if Africa is to develop its maritime, or blue, economy, which in turn would help reduce poverty; create employment, growth and exports; and strengthen food and energy security. Through the recent initiatives by a growing number of African countries, the African Union and multilateral development partners, slow but important progress has been achieved now.

First, African countries have limited infrastructure and capacities to assure maritime security and coastal protection; both of which are essential for establishing a viable blue economy. One-fifth of the world's fisheries catch is estimated to originate from illegal, unreported and unregulated (IUU) fishing.

Second, poor and inefficient fisheries management practices and limited capacity to enforce laws have allowed widespread use of harmful fishing methods. These methods have precipitated declining fish production and stocks, even when fishing capacity itself has increased. To illustrate, Ghana's fish production declined from an average of 289,000 tonnes a year to 203,000 tonnes over the last five years; and marine fish catches in Ghana, Côte d'Ivoire, Liberia, Togo, Nigeria and Sierra Leone are projected to decline significantly by 2050.

Third, with more than one-quarter of Africa's population living within 100 km of the coast, four interrelated factors— climate change, rising sea temperatures, ocean acidification and rising sea levels— have placed African coastal populations at increasing risk of coastal erosion and climate-related disasters, while having a devastating impact on ocean ecosystem services.

Several additional steps are needed, including strengthening African maritime security and coastal protection, developing national blue economy strategies, accelerating training, raising private sector awareness of blue economy opportunities and sharing emerging good practices more widely. New catalysts are also needed to spur renewed momentum and more intensive, collaborative action among African stakeholders in blue economy.

OTHER REGIONS

- The United Nations' Food and Agriculture Organisation reported in 2014 that Indonesia was the second-largest producer of marine products. Indonesia's aquaculture sector yielded more than 4 million tonnes in that year, which constituted 5.7 per cent of global aquaculture production. It also contributed roughly 6.7 per cent to Indonesia's national GDP in 2016 and absorbed 4.1 per cent of the country's total workforce

- In Indonesia, where two-thirds of coral reefs are considered threatened by overfishing, the Coral Reef Rehabilitation and Management Project (COREMAP), has benefited 358 village communities by establishing marine protected areas and reducing illegal and destructive fishing. This work has increased communities' income in COREMAP areas by 21 per cent since 2008. Now in its third phase, the project aims to increase communities' income by 15 per cent and improve coral reef health to at least 70 per cent of project sites by 2019.

- In Peru, the Bank partnered with the government to spur the adoption of new regulations to reduce overcapacity in the anchoveta fishing fleet. In December 2012, a total of 329 wood and steel vessels had been retired, representing around 30 per cent of the original fleet. The government compensated affected workers and facilitated their transition into other economic activities. Harvesting was kept within the catch limit, based on the science. As a result, independent fishers who remained in the sector landed with a better-quality product and negotiated a 200 per cent increase in price for the sale of their catch.

- Five countries are responsible for more than 50 per cent of total plastic waste in the oceans (China, Indonesia, Vietnam, Philippines, and Thailand). Estimated 80 per cent of ocean plastic pollution has originated from inadequate land-based solid waste management.

The Future

To combat these issues and promote ocean sustainability, innovative solutions that prevent and mitigate detrimental impacts on marine environments are essential. World leaders must also work to protect marine species and support people who are dependent on oceans, whether
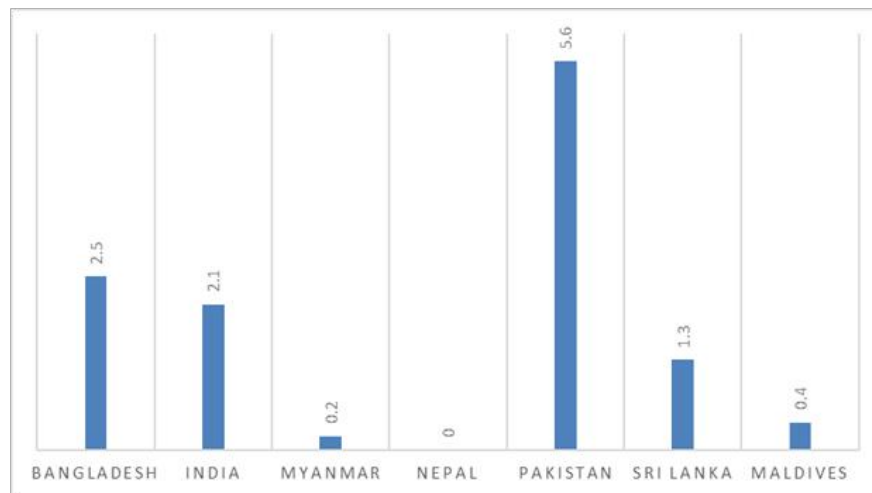

Diagram showing the percentage of territorial waters as marine protected areas

it be for employment, resources, or leisure. Key recommendations include:

- *Capacity- Building*

  We have identified that many of the challenges are rooted in a lack of awareness and education around the value and real benefits of the blue economy to relevant states. Capacity- building in key areas must prioritize training at a grass roots level, holistic engagement of technical volunteers and strategic engagement of Civil Society organizations and their relevant expertise. In addition it is critical to place capacity development in the service of the transformation of the ocean governance by achieving goals of the agenda 2030.

- Governance & Security

  A real lack of political will and priority related to the Blue Economy and issues around climate change have set the stage. Many coastal countries which are at the lower tier of pursuing blue economies are stifled by political instability, corruption and low trust in the protective services. In order to achieve meaningful progress and system change, governments must take responsibility and be held accountable for implementing clear policies on coastal and ocean management

- *Knowledge Exchange & Cooperation*

  With the onset of an era where the true value of South-South Cooperation and triangular partnerships are being mobilised, knowledge transfer and exchange of technical expertise and experiences must be placed at the centre of strategies to ensure unification of global agencies.

- *Financial Resources*

  Interventions and strategies must include potent mechanisms to mobilise financial resources so that research capacities can develop, which allowfor a meaningful understanding of viable solutions for achieving blue economies and sustainable oceans.

- *Holistic Strategic Plans*

  Agenda 2030 is only possible through long -term strategic plans that are relevant to the geo-political context of each country. Therefore new catalysts are needed to spur renewed momentum and more intensive, collaborative action among stakeholders in Blue Economy.

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RIS A Think-Tank of Developing Countries

Research and Information System for Developing Countries (RIS) is a New Delhi-based autonomous policy research institute that specialises in issues related to international economic development, trade, investment and technology. RIS is envisioned as a forum for fostering effective policy dialogue and capacity-building among developing countries on global and regional economic issues.

The focus of the work programme of RIS is to promote South-South Cooperation and collaborate with developing countries in multilateral negotiations in various forums. RIS is engaged across inter-governmental processes of several regional economic cooperation initiatives. Through its intensive network of think tanks, RIS seeks to strengthen policy coherence on international economic issues and the development partnership canvas.

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