Role of Extension Education in achieving Sustainable Development Goals

Lalita Vatta* and Shally Jindal**

India’s national Millennium Development Goal (MDG) Report released in 2015 reveals much work remains to be done in reducing hunger, improving maternal mortality rates and enabling greater access to water and sanitation targets, as well as reducing social and geographic inequalities in achieving these targets. However, progress made during the MDGs period has proven that, with sound strategies and targeted interventions, global action can work. India is poised to carry forward this momentum into the 2030 agenda for Sustainable Development, for ‘transforming our world’ and ensuring that the most vulnerable are not left behind and it can be achieved by awareness, dedicating ourselves to a human-centric, rights-based approach, right mix of policies and incentives, gender equality, accelerating technology, partnership models improving finances, transparency in institutes, e-governance etc. Human being are the base of all these strategies. Whereas extension education is an applied behavioural science, the knowledge of which is applied to bring about desirable changes in the behavioural complex of human beings usually through various strategies & programmes of change & by applying the latest scientific & technological innovations. The present concept paper is an attempt to identify the role of extension education in the journey of achieving sustainable development goals.

[Keywords : Extension Education, Sustainable development, Strategies]

* Assistant Professor, Development Communication and Extension, University of Rajasthan, Jaipur, Rajasthan (India) E-mail: <lkvatta@gmail.com>
** SRF, ICAR Funded project, Department of Home Science, University of Rajasthan, Jaipur, Rajasthan (India) E-mail: <lkvatta@gmail.com>
1. Introduction

India has, over the past years, directed its development pathway to meet its priorities of employment, economic growth, food, water and energy security, disaster resilience and poverty alleviation. India has also aimed to restore its natural capital and adopt transparent and robust governance along democratic lines. However, emerging challenges of climate change impacts, increasing inequities, and lagging human development indices are well recognized by both the citizens as well as the government. The post 2015 UN Sustainable Development Agenda framework provides an opportunity to renew and integrate efforts in order to meet, to a significant degree, national and global aspirations in a defined time frame. The SDGs will be more ambitious than the MDGs, covering a broad range of interconnected issues, from economic growth to social issues to global public goods. To realize this vision, a just-as-ambitious plan for financing and implementation is needed. The magnitude of the SDG financing challenge far exceeds the capacity of any one organization and demands a strong partnership among governments, the private sector, and development organizations.

NITI Aayog has been entrusted with the role to co-ordinate ‘Transforming our world: the 2030 Agenda for Sustainable Development’ (called as SDGs). Moving ahead from the Millennium Development Goals (MDGs), SDGs have been evolved through a long inclusive process for achievement during 2016-2030. The SDGs have been developed through an unprecedented consultative process that brought national governments and millions of citizens from across the globe together to negotiate and adopt the ambitious agenda. It cover 17 goals and 169 related targets resolved in the UN Summit meet 25-27 September 2015, in which India was represented at the level of Hon’ble Prime Minister. These SDGs will stimulate, align and accomplish action over the 15-year period in areas of critical importance for the humanity and the planet.

The task at hand for NITI Aayog is not merely to periodically collect data on SDGs but to act pro-actively fructify the goals and targets not only quantitatively but also maintaining high standards of quality. Ministry of Statistics and Programme Implementation (MoSPI) has already undertaken a parallel exercise of interaction with the ministries to evolve indicators reflecting the SDG goals and targets.

To achieve these tasks, the draft mapping of the goals and targets as an initial step on proposed Nodal and other Ministries has been carried out in consultation with MoSPI. Further, as an illustration, the Centrally Sponsored Schemes (CSSs), including the ‘core of the core’, ‘core’ and ‘optional’ Schemes being implemented by the States have been mapped along with some of the recent initiatives undertaken by the Central Government. In addition, Ministries are implementing Central Sector Schemes and States are also implementing various State Schemes aligned with one or more SDGs.
The SDGs have been developed through an unprecedented consultative process that brought national governments and millions of citizens from across the globe together to negotiate and adopt the ambitious agenda. As Prime Minister Narendra Modi has stated, “These goals reflect our evolving understanding of the social, economic and environmental linkages that define our lives.” India’s development mantra “Sabka Saath Sabka Vikas” (Collective Effort, Inclusive Development) and the associated national programs closely track the SDGs.

2. **Five P’s of Sustainable Development**

   - **People**: to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.
   - **Planet**: to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.
   - **Prosperity**: to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.
   - **Peace**: to foster peaceful, just and inclusive societies free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.
   - **Partnership**: to mobilize the means required to implement this agenda through a revitalized global partnership for sustainable development, based on a spirit of strengthened global solidarity, focused in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people.

3. **Sustainable Development Goals**

3.1 **End Poverty in all its Forms Everywhere**

1. By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day.

2. By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

3. Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.

4. By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic
services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including micro-finance.

5. By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

- Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions

- Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.

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<tr>
<th>Initiatives of Government of India</th>
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<tbody>
<tr>
<td><strong>Nodal Ministry : Rural Development</strong></td>
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<tr>
<td><strong>Centrally Sponsored Schemes</strong> : National Urban Livelihood Mission (<em>Core</em>), National Rural Employment Guarantee Scheme (MGNREGA) (<em>Core of the Core</em>), National Rural Livelihood Mission (NRLM) (<em>Core</em>), National Social Assistance Programme (NSAP) (M/o RD/M/o Finance) (<em>Core of the Core</em>), National Land Record Management Programme (NLRMP).</td>
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<tr>
<td><strong>Related Interventions</strong> : Pradhan Mantri Jan Dhan Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana, Atal Pension Yojana (APY).</td>
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### 3.2 End Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture

1. By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

2. By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

3. By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

4. By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate
change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

5. By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

- Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries.

- Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round.

- Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.

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<tr>
<td><strong>Nodal Ministry</strong>: Agriculture &amp; Farmers Welfare</td>
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<td><strong>Centrally Sponsored Schemes (CSS)</strong>: National Food Security Mission (Core), Mission for integrated Development of Horticulture, National Mission on Sustainable Agriculture, National Oilseed and Oil Palm Mission, National Mission on Agriculture Extension and Technology, Rashtriya Krishi Vikas Yojana (RKVY) (ACA) (Core), National Livestock Mission (Core), Livestock Health and Disease Control (Core), National Programme for Bovine Breeding and Dairy Development.</td>
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<tr>
<td><strong>Related Interventions</strong>: Targeted Public Distribution System (TPDS) , National Nutrition Mission (NNM) (Core), National Food Security Act (NFSA), passed in 2013, Mid-Day Meal Scheme.</td>
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### 3.3 Ensure Healthy Lives and Promote Well-being for All at All Ages

**Working with the States**

1. By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

2. By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.
3. By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

4. By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

5. Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

6. By 2020, halve the number of global deaths and injuries from road traffic accidents.

7. By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

8. Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective quality and affordable essential medicines and vaccines for all.

9. By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

   - Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate.

   - Support the research and development of vaccines and medicines for the communicable and non communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.

   - Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

   - Strengthen the capacity of all countries, in particular developing ones, for early warning, risk reduction and management of national and global health.

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<td><strong>Nodal Ministry : Health &amp; Family Welfare</strong></td>
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<td><strong>Centrally Sponsored Schemes (CSS) :</strong> National Health Mission including NRHM (<em>Core</em>), Human Resource in Health and Medical Education (<em>Core</em>), National Mission on Ayush including Mission on Medical Plants (<em>Core</em>), National AIDS &amp;STD Control Programme, Integrated Child Development Service (ICDS) (<em>Core</em>).</td>
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<td><strong>Related Interventions :</strong> Pradhan Mantri Swasthya Suraksha Yojana (2006) (<em>Core</em>).</td>
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3.4 Ensure inclusive and equitable quality education and promote life-long learning opportunities for all

1. By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.

2. By 2030, ensure 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.

3. By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.

4. By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

5. By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

6. By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.

7. By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.

- Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.

- By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries.

- By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States.

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<td>Nodal Ministry : HRD</td>
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### Centrally Sponsored Schemes (CSS)

- Sarva Shiksha Abhiyan (Core), National Programme Nutritional Support to Primary Education (MDM) (Core), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) (Core), Support for Educational Development including Teachers Training & Adult Education (Core), Scheme for providing education to Madrasas, Minorities and Disabled (Core of the Core), Rashtriya Uchhtar Shiksha Abhiyan (RUSA) (Core), Umbrella scheme for Education of ST students (Core of the Core).

### Related Interventions

- Padhe Bharat Badhe Bharat.

### 3.5 Achieve gender equality and empower all women and girls

1. End all forms of discrimination against all women and girls everywhere.

2. Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.

3. Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation.

4. Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.

5. Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

6. Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences.

- Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

- Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

- Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

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<td><strong>Centrally Sponsored Schemes (CSS):</strong> National Mission for Empowerment of Women including Indira Gandhi Mattritav Sahyog Yojana (Core), Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA) (Core).</td>
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**3.6 Ensure availability and sustainable management of water and sanitation for all**

1. By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

2. By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

3. By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

4. By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

5. By 2030, implement integrated water resources management at all levels, including through trans-boundary cooperation as appropriate.

6. By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.
   - By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.
   - Support and strengthen the participation of local communities in improving water and sanitation management.

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<td>Centrally Sponsored Schemes (CSS):</td>
<td>National Rural Drinking water Programme (Core), Nirmal Bharat Abhiyan (Core), Pradhan Mantri Krishi Sinchayee Yojana, National River Conservation Programme (NRCP).</td>
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3.7 Ensure access to affordable, reliable, sustainable and modern energy for all

1. By 2030, ensure universal access to affordable, reliable and modern energy services.

2. By 2030, increase substantially the share of renewable energy in the global energy mix.

3. By 2030, double the global rate of improvement in energy efficiency.
   - By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
   - By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support.

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<td><strong>Nodal Ministry:</strong> Power</td>
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<td><strong>Related Interventions:</strong> Deen Dayal Upadhyaya Gram Jyoti Yojana, National Solar Mission - providing continuous power supply to rural India, India Energy Policy, Power (2015)-Electrification of the remaining 20,000 villages including off-grid, Solar Power by 2020, Five new Ultra Mega Power Projects, each of 4000 MW to be installed.</td>
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3.8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

1. Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries.

2. Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value added and labour-intensive sectors.

3. Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

4. Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead.
5. By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

6. By 2020, substantially reduce the proportion of youth not in employment, education or training.

7. Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms.

8. Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

9. By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.

10. Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.

- Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries.

- By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization.

### Initiatives of Government of India

| Nodal Ministry : Labour & Employment
|Centrally Sponsored Schemes (CSS) : National Service Scheme (NSS), Skill Development Mission, Social Security for Unorganized Workers including Rashtriya Swasthya Bima Yojana (Core).|

**3.9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation**

1. Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

2. Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry’s share of employment and gross domestic
product, in line with national circumstances, and double its share in least developed countries.

3. Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets.

4. By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.

5. Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

- Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States.

- Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.

- Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.

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<td><strong>Nodal Ministry : Commerce &amp; Industry</strong></td>
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<td><strong>Centrally Sponsored Schemes (CSS) :</strong> Border Area Development Programme (BADP) (ACA) (MHA/M/o Finance), National Handloom Development Programme, Catalytic Development Programme under Sericulture, Pradhan Mantri Gram Sadak Yojana (PMGSY) (Core).</td>
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<tr>
<td><strong>Related Interventions :</strong> Pt. Deenadayal Upadhyaya Shramev Jayate Karyakram, Minimum Government Maximum Governance, Make in India, Start Up India, Ease of doing business initiative, FDI Policy.</td>
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3.10 Reduce inequality within and among countries

1. By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average.

2. By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.
3. Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.

4. Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.

5. Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations.

6. Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions.

7. Facilitate orderly, safe, regular and responsible migration and mobility of people, including through:
   - Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements.
   - Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes.
   - By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent.

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<th>Nodal Ministry : Social Justice &amp; Empowerment</th>
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<tr>
<td><strong>Centrally Sponsored Schemes (CSS)</strong> : Multi Sectoral Development Programme for Minorities, Backward Regions Grant Fund (District Component) (ACA) (M/o PR/M/o Finance), Scheme for Development of Scheduled Castes (Core of the Core), Scheme for Development of Other Backward Classes and Denotified, Nomadic and Semi-nomadic Tribes (Core of the Core), Scheme for development of Economically Backward Classes (EBCs), Grant Fund (BRGF) (State Component) (ACA).</td>
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| Related Interventions : Grants from Central Pool of Resources for North Eastern Region and Sikkim, Udaan Scheme for youth of Jammu & Kashmir, PAHAL- Direct Benefits Transfer for LPG(DBTL) consumers scheme, Give it Up Campaign (for LPG subsidy), Mudra Yojana. |

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### 3.11 Make cities and human settlements inclusive, safe, resilient and sustainable

1. By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.
2. By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

3. By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

4. Strengthen efforts to protect and safeguard the world’s cultural and natural heritage.

5. By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

6. By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

7. By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.
   • Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning
   • By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.
   • Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.

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<td><strong>Nodal ministry</strong>: Urban Development</td>
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<td><strong>Centrally Sponsored Schemes (CSS)</strong>: Rajiv Awas Yojana (including BSUP &amp; IHSDP), Indira Awas Yojana (IAY), Pradhan Mantri Adarsh Gram Yojana (PMAGY), National Programme for Persons with Disabilities, Jawaharlal Nehru National Urban Renewal Mission (JNNURM) (ACA).</td>
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<td><strong>Related Interventions</strong>: Smart Cities Mission (Core), Pradhan Mantri Awas Yojana (Housing for All-2022) (Core), Atal Mission for Rejuvenation and Urban Transformation (AMRUT) (Core), Heritage City Development and Augmentation Yojana (HRIDAY).</td>
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3.12 Ensure sustainable consumption and production patterns

1. Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.

2. By 2030, achieve the sustainable management and efficient use of natural resources.

3. By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.

4. By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

5. By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

6. Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

7. Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

8. By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
   - Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.
   - Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.
   - Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.
3.13 Take urgent action to combat climate change and its impacts

1. Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

2. Integrate climate change measures into national policies, strategies and planning.

3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

- Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible.

- Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

India’s challenge with terrestrial biodiversity are:

- 2.4% of world’s land area, 7-8% of recorded species, 18% of human and cattle population.
- Tremendous biotic pressure, high population density.
- Over 46,000 species of plants and 96,000 species of animals recorded so far - mega diverse.
- Acknowledged centre of crop diversity.
- Diversity of ecosystems - 10 biogeographic zones.

3.14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development

1. By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.
2. By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.

3. Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.

4. By 2020, effectively regulate harvesting and end over-fishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.

5. By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.

6. By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and over-fishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation.

7. By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including 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, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries.

- Provide access for small-scale artisanal fishers to marine resources and markets.

- Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of “The future we want”.

India’s marine and freshwater biodiversity With over 200 diatom species (smaller than plankton), 90 dinoflagellates (floating microorganisms), 844
marine algae and 39 mangrove species, the marine floral biodiversity of India is remarkable. 23 marine Protected Areas (PAs) in peninsular India and 106 in the islands. The global value of ecosystem services of wetlands is $4.9 trillion/year.

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<th>Initiatives of Government of India</th>
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<tr>
<td>Nodal Ministry: Earth Sciences</td>
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<td>Centrally Sponsored Schemes (CSS): Conservation of Natural Resources &amp; Eco Systems.</td>
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3.15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

1. By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.

2. By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.

3. By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.

4. By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.

5. Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.

6. Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed.

7. Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products.

8. By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.
9. By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.

- Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.
- Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation.
- Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities.

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<td><strong>Nodal Ministry : MoEF&amp;CC</strong></td>
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<tr>
<td><strong>Centrally Sponsored Schemes (CSS) :</strong> National Afforestation Programme (National Mission for a Green India) <em>(Core)</em>, Integrated Development of Wild Life Habitats <em>(Core)</em>, Project Tiger <em>(Core)</em>.</td>
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Climate Change-Biodiversity linkages:

- Healthy ecosystems and rich biodiversity are fundamental to our life - food, fibre, raw materials, clean air and fresh water. Even small changes in average temperatures can have a significant effect upon species and ecosystems.
- The inter-connectedness of nature means climate change has a knock-on effects upon a range of ecosystem functions.

**3.16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels**

1. Significantly reduce all forms of violence and related death rates everywhere.
2. End abuse, exploitation, trafficking and all forms of violence against and torture of children.
3. Promote the rule of law at the national and international levels and ensure equal access to justice for all.
4. By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime.
5. Substantially reduce corruption and bribery in all their forms.
6. Develop effective, accountable and transparent institutions at all levels.
7. Ensure responsive, inclusive, participatory and representative decision-making at all levels.

8. Broaden and strengthen the participation of developing countries in the institutions of global governance.

9. By 2030, provide legal identity for all, including birth registration.

10. Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.

   - Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime.

   - Promote and enforce non-discriminatory laws and policies for sustainable development.

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<td><strong>Nodal Ministry : Home Affairs</strong></td>
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<td><strong>Centrally Sponsored Schemes (CSS) :</strong> Panchayat Yuva Krida aur Khel Abhiyan (PYKKA), Development of Infrastructure Facilities for Judiciary including Gram Nyayalayas (Core), Integrated Child Protection Scheme (ICPS) (Core).</td>
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<tr>
<td><strong>Related Interventions :</strong> Digital India, Pragati Platform (Public Grievance Redressal System), RTI (Right to Information Act).</td>
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3.17 Strengthen the means of implementation and revitalize the global partnership for sustainable development

**Finance**

1. Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection.

2. Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries.

3. Mobilize additional financial resources for developing countries from multiple sources.

4. Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress.
5. Adopt and implement investment promotion regimes for least developed countries.

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<td><strong>Nodal Ministry</strong>: Finance</td>
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<td><strong>Centrally Sponsored Schemes (CSS)</strong>: Support for Statistical Strengthening</td>
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<tr>
<td><strong>Related Interventions</strong>: South-South Cooperation, India Africa Summit, SCO (Shanghai Cooperation Organisation), BRICS (Brazil, Russia, India, China, and South Africa), NDB (New Development Bank - BRICS), SAARC Satellite (South Asian Association for Regional Cooperation).</td>
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**Technology**

6. Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.

7. Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed.

8. Fully operationalize the technology bank and science, technology and innovation capacity building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology.

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**Capacity-building**

9. Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation.

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**Trade**

10. Promote a universal, rules-based, open, nondiscriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda.
11. Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries’ share of global exports by 2020.

12. Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access.

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<td>Nodal Ministry: Commerce and Industry</td>
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**Systemic issues:**

**Policy and institutional coherence**

13. Enhance global macroeconomic stability, including through policy coordination and policy coherence.

14. Enhance policy coherence for sustainable development.

15. Respect each country’s policy space and leadership to establish and implement policies for poverty eradication and sustainable development.

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**Multi-stakeholder partnerships**

16. Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries.

17. Encourage and promote effective public, public private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

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**Data, monitoring and accountability**

18. By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data dis-aggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts.
19. By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries.

Initiatives of Government of India

| Nodal Ministry : MOSPI |

4. **Linking SDG’s and Extension Education**

4.1 **Concept of Extension Education**

Leagans (1961) conceptualized extension education as an applied science consisting of content derived from research, accumulated field experiences and relevant principles drawn from the behavioural sciences synthesized with useful technology into a body of philosophy, principles, content and methods focused on the problems of out-of-school education for adults and youth.

The National Commission on Agriculture (1976) refers to extension as an out-of-school education and services for the members of the farm family and others directly or indirectly engaged in farm production, to enable them to adopt improved practices in production, management, conservation and marketing.

Education is a necessity for the development initiatives and extension of education through building capacity of the people who cannot be the part of formal education system is the second most important initiative for development. Extension worked from people to partnership: among local people and local bodies, local bodies with higher bodies and institutes, higher bodies to national and international organizations and vice-versa.

4.2 **Linking extension education with SDG’s**

1. Linkages development between beneficiaries and service providers and host institutes should be the prime focus for an extension education institute.
2. Follow up studies regarding impact of development programmes and related interventions.
3. People can be assisted to discover and analyze their problems and identify the felt needs so that they can avail the benefit of government initiatives.
4. Sustainable Goals like :
   - eradication of poverty is directly and indirectly associated with extension education. If an extension student be and can make people more aware and educate about the schemes and interventions of Government of India and respective states, develop skill in people which may end to an entrepreneur activities, building capacity regarding assertion on their rights, it would a really a big contribution to the nation.
   - End hunger, achieve food security and improved nutrition and promote sustainable agriculture is the very critical goal and the objective of
extension education. Home Science and Agriculture extension both are
directly associated with promotion of sustainable agriculture and
utilization of food in proper manner to get maximum nutrition potentials.
The students are employed in the most of government initiatives.

- Ensure healthy lives and promote well-being for all at all ages is a direct
  concern for Home Science. Creating awareness for epidermis, non
  communicable disease, involving students into road safety measures,
capacity building of front line workers and developing links for students
  internship programmes in various programmes can be the contributing
  measures.

- Life long learning educations in already a part of syllabi. Life skill
  education, entrepreneurship, vocational education are being taught at
  various level. The need is to make education more skill based.

- Goal - 5 is related with gender equality , which can be achieved through
  making society aware about social evils through various communication
  technologies. Developing leadership and making society economic and
  socially empower and designing information capsules which can be
  helpful in building attitude.

- Climate change is not a short term event so cannot be controlled is short
  span. Simple things like climate change mitigation, adaptation, impact
  reduction and early warning can be included in our educational and
  capacity building programmes.

- Research information can be disseminated to people which are of
  economic and practical importance in a way that it would be in
  understandable form and can be used by them.

5. Helping people in mobilizing and utilizing the resources which they have
and which they need from outside.

6. Collection and transition of feedback information for solving management
problems.

References

t-oals-index-india-ranked-117-of-157-countries-117071301204_1.html cited on August
25, 2017

http://niti.gov.in/content/frequently-asked-questions


http://niti.gov.in/content/niti-aayogs-role

education/89543/ cited on August 29, 2017