National Consultation on SDGs
Sustaining Life: Integrating Biodiversity Concerns, Ecosystems Values and Climate Resilience in India's Planning Process

Focus on SDG 13, 14 and 15

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WWF India Auditorium

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Rationale

Resilient economies and poverty eradication can only be achieved by safeguarding the environment, protecting the ecosystems that sustain human well-being and mitigating climate change and its impacts.

The Sustainable Development Goals are a big step forward for achieving the equitable and environmentally sustainable economic development. They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and addresses a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.

They recognize that we all depend on the planet's natural resources (forests, rivers, oceans and land) such as resources such as clean water, arable land, plentiful fish and wood; and ecosystem services such as pollination, nutrient cycling and erosion prevention, and resilience to a changing climate for our social and economic wellbeing. Equally, they stress that our ability to use the planets resources wisely depends upon creating a fair, sustainable and prosperous society, and decoupling our economies from fossil fuels and environmental damage.

Environmental changes affect us all, especially the poorest people who are most vulnerable to food and water scarcity, and impacts of climate change. Putting ecosystems at the centre of development planning and managing natural resources in fair and accountable ways will bring economic and social benefits and ensure food, water and energy security for all.

India has 21 eco-regions with rich biodiversity and a vast proportion of tribal population heavily dependent on forests for subsistence. Challenges such as loss of biodiversity and marine resources, degradation of ecosystems and climate change will have adverse impact on the economy as agriculture and allied activities (livestock, fisheries and forestry) contribute to 17% of GDP.

As a UN member nation, and also as a nation aiming at faster and inclusive growth, India has substantial reasons to fulfill its commitment and achieve the SDGs through effective implementation of its policies, plans and programmes, which also address the global commitments.

The two day workshop focused on the following Sustainable Development Goals:

Goal 13 "Take urgent action to combat climate change and its impacts",

Goal 14 "Conserve and sustainably use the oceans, seas and marine resources for sustainable development"

Goal 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".

Implementation of the three goals along with their targets will help India to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters; integrate climate change measures, ecosystem and biodiversity values into national policies, strategies and planning; protecting, conversing and managing ecosystems and mobilization of resources.

India has only finite natural resources. We all must work together to protect nature, produce and consume more wisely, guide financial flows to sustainable activities, and ensure equitable resource governance.

The Post-2015 sustainable development framework should help us make better choices at all levels for a thriving natural environment that supports good health, decent work, meaningful lives and prosperity for all.

Objectives

1. Build a common understanding on the significance of SDGs 13, 14 and 15 in relation to India's sustainable Development
2. Develop recommendations on how climate concerns, ecosystem and biodiversity values can be integrated into the national and state visions, strategy and action plan.

Session 1: Setting the Context

Welcome Remarks by Shri Ravi Singh, SG and CEO, WWF India

Shri Ravi Singh welcomed the gathering to the two day consultation on SDG 13, 14 & 15. He commenced his address by stating that the SDGs stand for the protection, sustenance and integration of the planets natural resources. He also stressed that the SDGs are intended to utilize the planet's resources wisely, creating a fair sustainable process, developing our economies and fossils fuels and reducing environmental damage.

Elaborating on India's rich biodiversity, he mentioned that India has 14 eco regions, 10 bio geographic regions & 35 biotic provinces on which a very large proportion of poor, especially tribal's, depend for their daily needs. The SDG's recognize that India's poverty has a number of dimensions and require working on a strategy that builds economic growth, health, social protection and opportunities – especially those that will change the environment.

He also mentioned that WWF India works closely with all three SDG's in focus and contrary to popular understanding, a fairly large amount of work today is invested towards sustainable agriculture, water, wildlife, access to clean energy, sustainable production & consumption, climate change issues. He also said our government, both at the Centre and the states, multinationals, work towards this goal, and it has been manifested in some of the language that encapsulates these goals. He ended by stating that WWF India is working closely with our government to support and enhance this factor.

Opening Remarks by Dr. Ashok Jain, Advisor, NITI Aayog

Dr. Ashok Jain welcomed the gathering and mentioned that the SDG goals 13, 14 & 15 are important goals. He reaffirmed that the NITI Aayog has been given the responsibility of overseeing the SDGs and the related targets in India. He said that the inputs and recommendations that will be received from officers of the various states and the Ministries of the Govt. of India with expertise on different subjects will be really useful in the formulation of the fifteen year vision, strategy and action plan document. He also said that India has offered the following in the Nationally Determined Contributions:

1. Contribute to reduce the emissions intensity of its GDP by 20-25% over 2005 levels.

2. Achieve 40% cumulative electric power capacity from the lower fossil fuels based energy sources.

3. Create an additional carbon sink of 2.5 – 3 billion tons, equivalent of CO2 by creating additional forest and tree cover.

He reiterated that these are the few of the very important nationally determined contributions in global interest and that the contributions, advice and recommendations from this two day consultation will have important impact on policy formulation.

Introduction and Overview - SDG 13, 14, 15 & its Targets –Prof. Sachin Chaturvedi, DG, RIS

Prof. Chaturvedi brought to notice the fact that with the present consultation, NITI Aayog had completed one year of major initiatives in terms of deepening the dialogue and implementation, particularly with the states and all other relevant stakeholders. He praised NITI Aayog for trying to bring forward a coherent view and strategy, particularly as during a transitioning from an era of 5-year planning to a very different kind of economy. He mentioned that the PM's flagship programmes are in sync with India's commitment to SDGs and MoSPI is working on coherent indicators.

For combating climate change he suggested that the strategies that we adopt should be well in sync with other countries. In context of Goal 14, he drew attention to the PM's initiative of connecting coastal districts and coastal states through port led development. He stated that NITI Aayog has already issued some key reports on the way forward, in terms of liberating the strength of oceans, bringing forward the idea of port led development and coastal economies. For Goal 15, he stated that the National Biodiversity targets and Aichi targets were in convergence with SDG 15. He also stressed that protection of the territorial ecosystems can be achieved only by addressing issues like inland water ecosystems and natural resources. The idea is to protect as well as sustainably use our territorial ecosystems without compromising on access to drinking water, sanitation and renewable energy.

Special Address – Shri Amitabh Kant, Chief Executive Officer, NITI Aayog

Shri Kant informed the gathering that NITI Aayog has built a dialogue along the SDGs, particularly with the states, stakeholders including experts, academia, institutions, civil society organizations, international organizations and all central government ministries. He stated that India is growing at about 7.6% per annum and the challenge for India is to grow at even higher rates, 9-10% as well as to provide decent living for a very young population from below the poverty line. But as we do this, he stated, it is very important that we do it in a sustainable manner. He highlighted that the discussion on Goal 13, 14 and 15 and its targets required urgent action. He reiterated that our objective today is to build a common understanding of these SDGs in relation to India's sustainable development, and to develop implementations on how climate concerns, ecosystem and biodiversity values can actually be implemented into the national and state visions as well as action plans. According to him, in order to meet India's nationally determined contributions we need to develop very robust adaptation strategies for agriculture, water and health concerns as well.

Keynote Address – Prof. Ramesh Chand, Member, NITI Aayog

Prof Ramesh Chand in his address pointed out the linkages among the different goals of the SDGs and that understanding these linkages will improve our approach towards SDGs. He emphasized that Goal 13 is most important as India had ratified the climate agreement and has three important targets to meet of lowering emission intensity, carbon sequestration and increasing share of renewable energy capacity to 40%. We need to understand how different production activities are related to climate change and the other SDGs.

He further drew linkages between agriculture and climate change. Agriculture as an activity not only affects climate change but is itself affected by climate change. One degree of increase in temperature would not affect the production of motorcycles or other commodities but would have a

direct impact on agriculture. He said that we can make much difference to our production if we change the methods of production, not only relating to the production of food, but to other activities also. The role of biodiversity and the ecosystem in sustaining our lives needs to be appreciated more seriously. Biodiversity is a wealth that is not only needed to be conserved, but also to be appropriately used. We need to emphasize on conservation and also the use of biodiversity in the optimum way. He said that we need to harness all this by using a balanced approach.

The presentations of all the sessions are available on the link which has been provided below:

https://www.dropbox.com/s/jqzsf5840274vep/Presentations.zip?dl=0

Session 2: SDG 15

LIFE on LAND – Terrestrial Ecosystems Conservation and Human Well Being

Chair: Dr. P. D, Rai, Founding Member, Integrated Mountain Initiative

Dr P. D. Rai chaired the session on SDG 15. He said that the total amount of value we attach to our ecosystems and nature maybe huge in terms of money. However, whatever value we may put for nature, it will always be less. He mentioned that we need to frame actions in alignment with the existing policies for their better implementation as well as strengthen these policies. We should also explore the possibility of using new policies and new tools for doing the necessary tasks.

Terrestrial ecosystems contribution of India's Development

Dr. Ashok Khosla, Chairperson, Development Alternatives, stressed that it is our job as humans to protect nature, to use it to our advantage but also to conserve it in such a way that it will continue to be available for future generations too. He also elaborated on importance of the ecosystem functions and services provided by nature and suggested that decisions which are often based on economics should also include these costs. He said that the nature is infinite and through his presentation he tried to capture nature in terms of rupee but we need to see how we can convince our political leaders and the economists who advise them, that nature is worth protecting in its economic power. For conserving nature and working towards Goal 15 and its targets, he stressed that we need to keep in mind:

1) Ecosystem services are nature's subsidies to society and the economy. These subsidies are extremely large, but not always noticed, especially by our decision makers and the public. NITI Aayog and Government of India should allocate funds, with high priority, for valuation of our ecosystems so that better decisions can be made.

2) Nature is not just a producer of goods and services that we need, but also a storehouse of knowledge that we desperately need.
3) Nature has aspects like aesthetic beauty, ethical and inspirational and there are many other benefits, mitigation of floods, storm protection, regulation of climate, nurturing for migrating species, among many.
4) Ecosystems are very fragile, and we can disrupt and destroy the systems by well-meaning but badly designed programmes and actions.
5) The paradox of economics is that if ecosystem services are not qualified, even if the value is infinite for planetary survival, in economics it is worth nothing, and depreciation applies only to engineering capital – to factories, computers, etc, and not to natural capital. Until we correct that in our economics we are just going to get the wrong answers

Current Situation and Issues

Dr Rekha Pai, IG Forests, MOEFCC, spoke about the Existing Governmental Policy Framework and Schemes contributing towards the SDG 15 and its Targets. She emphasized on the various services that flow from the forests and the forest cover of India. She then discussed the existing legal framework which included the constitutional provisions on forests along with Acts, Policies & Rules relevant and pertaining to SDG 15. She highlighted some of the forestry programmes/ schemes of the Ministry. She also touched upon the importance of other terrestrial ecosystems like wetlands, and mountains and also stressed upon the importance of combating desertification. Some of the issues highlighted were:

- Strengthen the inter-ministerial and inter-departmental coordination
- Development of measurable indicators
- Setting up Transparent Monitoring and Reporting System
- Adequate means of implementation including financing, technology transfer and capacity building

Panel Discussion

The panel discussion on SDG 15 was chaired by Dr. Kartikeya Sarabhai, Director, Centre for Environment Education, and the panelists were Shri Manish Chauhan, Joint Secretary, MEA, Dr. Krishna Kumar, DDG, MoSPI, Shri Rituraj Singh, Conservator of Forests, Govt. of Mizoram and Dr. S C Joshi, PCCF and HOFF, Govt. of Kerala.

The key challenges as well as opportunities which emerged out of the discussion are listed below:

1) SDG has brought most issues related to biodiversity under one umbrella and provided linkages which require us to engage different forum and sectors. It has also projected that they are not only for developing countries but also for the developed world.
2) SDGs mirror the policies of the government. The voluntary and universal nature of the SDGs is something that needs to be understood. There is a need for policy coherence and greater inter-ministerial discussion. We need to perhaps do is a greater alignment of policies with the goals and the targets laid out in SDGs.
3) Developing the measurement framework of the policy problems is important. Data is playing a major role in determining the overall policy framework of measurement. The existing

database is very sketchy in many areas and there are a lot of data gaps efforts have to be made to fill up these gaps. To enhance the database there is a need to look for new data sources and new methods of compilation of data. The statistical system in India doesn't have that capacity at present. Capacity building does not merely mean that you provide some training, financial resources; it is also on the institutional building, coordination mechanism, data production, data analysis, data dissemination.

4) As India is a bio-diverse country, there are many types of ecosystems that can be found here. Therefore the methodology adopted for valuation of ecosystem services cannot to be same. One has to be very careful while choosing the methodology that will be adopted and how to develop it.
5) The dilemmas between use of technology and traditional knowledge. It is very difficult to decide what to use and when. The transformation of tradition is something much more that we need to do in India than banning tradition. It is important therefore, how do we take traditions and transform them to the needs of modern requirements.
6) The adoption of convergence as a method to bring different stakeholders together should be emphasized along with the landscape level thinking.

Sub Group Session

After the discussions, the participants were divided into sub- groups to discuss and develop recommendations on the major changes required in policy, planning, implementation, financial allocation etc. needed to meet the Goal 15 and its targets. The sub group also discussed the institutional arrangements required for integrating terrestrial environmental management priorities into planning and development. The recommendations emerging out of this session have been mentioned in detail in Session 5.

Session3: SDG 14
Life below Water - Sustainable Management of Coastal and Marine Ecosystems

Chair: Dr. V. K. Saraswat, Member, NITI Aayog

Dr. V. K. Saraswat, reminded the gathering that if we are looking at the economy which is going to be sustained through and around the coastal regions, or anything to do with and around water we have to be careful on how we use it. He said that the term which was earlier being used as ocean economy was converted into a term called blue economy. Blue economy was basically to take care of not only what is happening just within the ocean, but what is around the ocean, coastal regions and so on. He stated that development cannot be looked in isolation to a particular region. India has a huge coast line, more than 7,800 km. If this needs to be developed, both with respect to the local economy, or the economic development with respect to the rich resources present, the maintenance of the biodiversity is required. We need to really lay down the parameters which have to be satisfied for a project for the development of any activity within the coastline. If one tries to revive water systems, it is not just the revival of the system. One also needs to look at the kind of advantages that you will get i.e. the economic advantages. We would also have to look at the population and habitats which will grow around as well as the activities that will take place around that. All this will have an impact on the overall diversity of the system.

Marine & Coastal Ecosystems and their contribution to India's Development

Dr V. Vivekanandan, Advisor, South Indian Federation of Fishermen Societies spoke about Integrating SDG 14 into India's Economic Development Process. He started with describing SDG 14 and its targets as well as the importance of marine and coastal ecosystems. He then emphasized on the rationale behind integrating of SDG goals in India's development process with respect to fisheries, marine and coastlines. He highlighted a few points that described the current situation and also areas which need to be focussed upon

1) Coastal waters have been over exploited as have been many species. Coastal eco-systems are more rapidly degrading than marine eco-systems due to-
   - Urbanisation
   - Pollution from land based sources
   - Power plants on the coast
   - Port development activities
2) Marine Fishing Regulation Acts weakly enforced. The focus is mostly on zonation and gear bans. There is no serious look at capacity as a whole and the equitable distribution of the benefits to all fishermen. There is lack of clarity on how to close what is an "open access" system.
3) Amendments and Dilution of Coastal Regulation Zone and its implementation which needs to be reversed and the implementation made stronger.

4) Complex undocumented tenure systems on the coast leading to loss of coastal land to other sectors. Displacement of fishing villages and strong negative impact on the livelihoods of fishermen

Current Situation & Issues

Dr. S.C Shenoi, Director, Indian National Centre for Ocean Information Services (INCOIS), Ministry of Earth Sciences spoke about the existing government policy framework and schemes contributing towards the Goals and Targets of SDG 14. Some of the issues highlighted were -

- Review of the overall governance system that affect SDG 14 implementation
- Centralized vessel identification and monitoring system
- Public availability of information of ecologically sensitive zones (inclusive but not limited to MPAs)
- Address poaching, by-catch, accidents of mammals, top predators and turtles
- Species specific marine fishing ban based on life-cycle
- Ecosystem-based fishery management (quota, HABs, hypoxia, jellyfish)
- Eco-tourism and Citizen science for monitoring, awareness and alternate livelihood
- The fishing sector needs to be given more importance in the current administrative set up in Government of India.
- Improved coordination between Sectors/Ministries/Departments using marine/coastal resources and space
- Strengthen regulatory framework—both laws and implementation mechanism; overlap of jurisdiction to be sorted out; inter-state issues
- Environmental clearances and post clearance follow up are often weak and need to be more robust. Marine Terms of Reference are often inadequately framed. The clearance bodies and their processes are limited and they need to be further strengthened. Follow up in most cases is almost non-existent.
- Top-down fisheries management to be replaced by joint management of fisheries with fishermen issues
- Improve information available for resource management—with disaggregated information. Valuation of coastal and marine resources essential for go-no go decisions on projects impacting marine and coastal environment.

Panel Discussion

The panel discussion for SDG 14 included Dr. Yugraj Yadav, Director, Bay of Bengal Programme, Dr. B. Meenakumari, Chairperson, National Biodiversity Authority, Dr. Alok Saxena, PCCF, Andaman & Nicobar Islands and Dr James Mathew, Director, MoSPI.

The key challenges as well as opportunities which emerged out of the discussion are listed below:

1. As the fisheries in coastal and marine waters are divided between the State and Central government, there's hardly any coherence and convergence between the two governments. Convergence should not only be between the State and Central government but also

between the Ministries and Departments of the Central Government and between the departments in the State government.

2. Implementation of the SDGs would require building up of capacity, at the Union level, at the State level, with the stakeholders
3. The issue of marine spatial planning is also a key challenge and there is a need for better and improved mapping of our coastal and marine area.
4. The impact of marine debris and anthropogenic underwater noise on marine and coastal biodiversity are of great importance. There is a need to mitigate potential adverse impacts of marine debris and we need to mainstream such issues.
5. The value as well as measured data of marine and costal ecosystems is not available so we have limited knowledge. There is a need for necessary capacity building for the development of methodology for data collection. There is a need to systematically compile data from various sources otherwise may not be able to manage what we don't know.
6. The islands are neglected and need to be looked into in detail. None of the presenters have covered the islands in any detail. The main threats to the islands come from climate change even though the islands are not contributing anything to green-house gas emission or global warming.

Sub- Group Session

As there were very few marine and ocean specialists, a plenary discussion was organized to discuss and develop the recommendations on the major changes required in policy, planning, implementation, financial allocation etc. needed to meet the Goal 14 and its targets. The plenary also discussed the institutional arrangements required for integrating coastal and marine environmental management priorities into planning and development. The recommendations emerging out of this session have been mentioned in detail in Session 5.

Session 4: SDG 13

Build Resilience and Combat Climate Change and its Impact

Chair: Shri R. R. Rashmi, Special Secretary, MoEFCC

Integrating Climate Change Mitigation and Adaptation into Development Processes

Dr. Navroz Dubash, Senior Fellow, Center for Policy Research, highlighted the following points about Integrating Climate Change Mitigation and Adaptation into the Development Process.

1) Need to understand integration of climate change and development as the existing departments, schemes, policies pursue varied development objectives
2) Not to reinvent the wheel and urgently identify the linkages across objectives
3) Focus should be on multiple objective based approach to integrate climate change and development planning. Need to clearly identify desired objectives and related policies and understand implications of climate change on objectives.
4) The first round of State Action Plans on Climate Change (SAPCCs), it has been seen that there is difficulty in breaking departmental silos and the incentives which needs to be worked upon .

Current Situation & Issues

Shri R.R. Rashmi, Special Secretary, MOEFCC spoke about the about the existing government policy framework and schemes contributing towards the Goals and Targets of SDG 13. He started with giving the global context and then moved on towards stating India's Nationally Determined Contributions that are building resilience towards climate change. He described the framework for Climate Action in India which included the National Action Plan on Climate Change (NAPCC), the 8 National Missions and State Action Plans. He then went on to describe the ongoing national missions on Sustainable Agriculture, Sustainable Habitat, Water, Sustaining the Himalayan Ecosystem and Strategic Knowledge. He also described the state action plan on climate change and the dedicated domestic finances like the National Adaptation Fund for Climate Change (NAFCC), Climate Change Action Programme (CCAP) and National Clean Energy Fund (NCEF).

Some issues highlighted were-

- Assessment
    - Identifying vulnerabilities of communities and eco-systems and make impact assessment;
    - Designing dedicated programmes, projects and systems, where necessary, to address impacts, conserve/develop natural resources and manage future risks;
    - Mainstreaming adaptation concerns in ongoing/new policies and programmes.
- Capacity
    - Building capacity to assess impacts;
    - Strengthening Community based institutions;
    - Designing/implementing adaptation programmes at various levels-Centre, state, communities, civil society;
    - Disseminating/communicating climate change information.
- Resources
    - Mobilise and allocate financial resources.

- Updating/revising SAPCCs to identify small number of big integrated directional changes consistent with state circumstance
    - Drive multiple objective based integrated thinking across departments
    - Provides incentive for departments to link to climate issues
    - Provides basis for prioritizing and funding
- Strengthening state climate units to operate in an advisory capacity
    - 'Nudge' departments to draw links to climate objectives – review and advisory role
- Building interface between states and scientific expertise
    - Provide pathways to scientific input
    - Downscaled regional climate prediction

Panel Discussion

The panel discussion on SDG 13 included the following panelists Dr. Vikram Gaur, JS, NITI Aayog, Dr. Ravi Shankar Prasad, JS, MoEFCC, Mr. S K Sinha, Director cum Special Secretary, Environment, Govt. of Odisha and Mr. Shwetal Shah, Technical Advisor, Govt. of Gujarat.

The key challenges as well as opportunities which emerged out of the discussion are listed below:

1) There are government policies and funds for plantation activity as well as agro forestry. This means that there is a huge potential in the country and the tree growth cover can be really enriched. This can then provide for a huge carbon sink for the country.

2) There is a need to have a look at the causes of change, the key areas of concern, the rising temperatures, the variances in rainfall and precipitation. We also need to monitor the expected rise in sea levels, the onset of extreme weather and slow onset events. The kind of impacts we are expecting in water, agriculture, coastal areas, etc. Then see how it is going to impact livelihoods and then think through the kind of measures we have to bring out.
3) Adaptation has been talked about in many aspects but has not been quantified in NAPCC and Nationally Determined Contributions (NDC).
4) It's easier when there is no international reporting as far as adaptation and resilience is concerned. There is a need for downscaling of the climate models to bring it down to the sub district and sub state level for better reporting.
5) There is a need for indicators and guidelines from the NITI Aayog and the Ministry of Statistics to quantify progress of the states otherwise it would be really difficult to combine the progress. There should be number bound targets for achieving the goals under SDG.
6) It was also seen that Orissa was probably the one of the first states to have its SAPCC after realizing the vulnerabilities it can face in its state. They have now developed their second SAPCC. Similarly, Gujarat has also come up with some policies on Solar and Wind which help to contribute in climate change mitigation. They are also doing research on different aspects of climate change adaptation and mitigation as well as, fundamental science of climate change. In some states like Jharkhand the state action plan is not given any importance as there is not much research and scientific data that is available there.

Sub Group Session

After the discussions, the participants were divided into sub- groups to discuss and develop recommendations on the major changes required in policy, planning, implementation, financial allocation etc. needed to meet the Goal 13 and its targets. The sub group also discussed the institutional arrangements required for building resilience and integrating climate concerns into planning and development. The recommendations emerging out of this session have been mentioned in detail in Session 5.

Session 5: Sub group Recommendations and Next Steps

Chair: Dr. Amita Prasad, Additional Secretary, Ministry of Environment, Forest and Climate Change

Dr Amita Prasad chaired the session where the sub group recommendations were presented. Dr. Prasad spoke about the biodiversity linkages with climate change. She said that we require some sort of climate proofing for every problem. She also listed out the various legislations and acts pertaining to biodiversity in India. According to Dr. Prasad, the Environment Protection Act is one the most powerful and potent act among all the other Acts. She also listed out the linkages between SDG 15, Aichi Targets and the National Biodiversity Targets. In the end she emphasized that the challenge today is that we don't share data with one another. One ministry doesn't share data with another and the central government doesn't share data with the state. The priority should be to gather whatever data is available from all the sources and act immediately towards climate proofing.

The sub group recommendations were compiled and summarised for each Goal. The three facilitators then presented the main recommendations to the plenary.

SDG 15- Dr. B. M. S. Rathore, Chief Policy Advisor, ICIMOD

Integrated Planning, Synergy and Convergence

- Ecosystems have mutually reinforcing relationships and cannot be addressed through narrow sectoral approaches. It calls for integrated planning and synergistic actions, on a scale (landscape approach, including transboundary landscape). E.g. Apatani
- Integrated Land use planning for multiple objectives done at local level with spatial relations through micro/mini watersheds has good lessons to bring synergy, tradeoffs and convergence of sectors /resources to address multiple land uses in holistic manner in a given landscape. E.g. Mizoram
- Upstream – downstream linkages/relationships need to be fully underscored in integrated planning.
- Inter SDG convergence.

Governance and Institutions

- The institutions and the processes must ensure meaningful participation of stakeholders including related line agencies, private sectors, academia, people's representatives, communities etc. Role of lead agencies for inclusive processes.
- Need to have institutional coherence at all levels to ensure convergence and synergy of highest order: state steering committee under CS at State and institutions of decentralized governance at local level to lead the charge.
- Country ownership of SDGs to ownership at level where action is.
- Need to make it a peoples movement /quest for sustainability

Policy & Regulations

- Need to address different ecosystems and eco-regions, rather than straight jacketing it under "forest" and making it pan India. Grazing land/pastures, wetlands, deserts; urban landscapes, mountain (Himalayan ecosystem) need different dispensation. Sustainable production forestry needs renewed emphasis. Agro forestry as way to bring additional area under forest cover. Review implementation of policies. Identify gaps for improving policies. E.g. Water diversion

and river pollution impact on downstream regions; base-flow is Downstream (Base) Flows is a policy but is not being implemented.

- The time is ripe to put Cumulative EIA /Strategic EIA in the policy and ensure its effective implementation with high standards of compliance.
- Single window clearance on multiple sustainability indices, and implemented effectively.

Mainstreaming

- Ecosystem service values and concerns need integration in all the sectors for win situation.
- Environmental Externalities need to be fully internalized in developmental projects, e.g. Karnataka in the process of doing it.
- State of environment report must take cognizance of SDGs

Incentives /Fiscal instruments

- Walking sustainability path has "Costs" to it at least in the immediate short run and must be provided for.
- Need to assess budgetary allocations for the forests and environment (across all sectors) and take appropriate measures to address the gap.
- Address bottle neck on devolution of fund as per 14th FC dispensation.
- Time for Eco taxes.

Capacity Building

- Stakeholder's specific communication for awareness: whose bible/whose goals?
- Capacity building on baselines; guidelines on the indicators and measurements; address 3 tiers (state, district and local) for implementation and data compilation.
- Dissemination of best practices : Sectoral linkages of with FD with Fisheries and Agricultural department – UP FD has a vision 2020 aligned with SDG 15, Assam SDG Road map
- State level focus and engagement with relevant departments

Generic

- Invasive species need better focus and collaboration.
- Forest fire, each state to have fire management plan (NGT)
- Transformation of Traditions rather than banning it.
- Appropriate technologies (blending of Traditional Knowledge and Science); Impact of technology on ecology
- Role of Foresters

SDG 14- Dr. Sejal Worah, Programme Director, WWF India

Governance/Institutions

- Ownership over marine territories/resources not clear and traditional systems are breaking down
- Top-down fisheries management needs to be replaced by joint management (including of MPAs)
- New institutions and mechanisms need to be evolved for participatory and sustainable fisheries management
- Marine spatial planning needs to be made a priority to resolve current and future conflicts
- WLPA not designed for marine conservation and needs to be reviewed

- The current administrative set up in the Government of India needs to seriously reconsider and give more focus and importance to fisheries

Legal/Policy/Regulations

- Effective implementation of existing regulations and guidelines would go a long way (e.g. fleet capacity, EIAs, CRZ, registration, etc.)
- Clarity of legislation related to coastal and marine resources needed
- Overlap of jurisdiction needs to be addressed (inter-state, state-centre, inter-department)
- Subsidy regime for fishermen should be reviewed and rationalized (can act as perverse incentive)
- Several policies and regulations need updating but hampered by political considerations and lack of information

Convergence/Integration

- There is a need for improved coordination between Sectors/Ministries/Departments using marine/coastal resources and space (Agriculture, Shipping, Ports, Power, Industries, Tourism, Roads, Environment, Coast Guard, Navy, etc)
- Coherence, convergence and coordination between state and centre, ministries and departments is essential
- SDG 14 Goals & Targets should be incorporated into National Marine Fisheries Policy
- Coastal states need to build synergies for SDG implementation

Information/Technology

- Limited knowledge about our vast and varied marine systems, their resources, and how their ecosystems function – need more and integrated research both short and long term
- Lack of data (can't manage what we don't know) including setting quotas, fishing bans, zonation, etc. – need consistent, credible and coordinated data collection & management systems at national and state levels
- Very little understanding of land/sea interactions and impacts as well as human-ecosystem interactions – needs integrated research and action
- Use of modern technology for vessel tracking, monitoring, surveillance, etc.

Generic

- Need for positive incentives to promote sustainable fisheries (e.g. certification)
- Need to move towards ecosystem-based fishery management
- Equitable benefit capture and sharing needs to be kept in mind when promoting new technologies or deep sea fishing
- Need for Capacity, Capital, Commitment
- Integration between different SDGs (e.g. 13 & 14)
- (Many specific recommendations which will also be captured and forwarded)

Specific Areas of Concern

- Overfishing
- Social transition in fishing communities

- Marine pollution
- Siltation of river confluences
- Coastal erosion
- Invasive species
- Endangered species
- Marine debris
- Anthropogenic underwater noise
- Climate impacts

SDG 13- Shri Jitendra Kumar, Advisor, NITI Aayog

Policy

- Centre and states should jointly set targets for states against all NDC
- Review and revise SAPCCs - new knowledge on climate change, vulnerability assessment and green house gas emissions should be added to make them robust
- Policy and objectives should address climate change trade-offs
- Take available vulnerability assessments, integrate it with plans of nodal climate change officers of districts - climate proof disaster management plans at state/district level
- Guidelines on SAPCC should be provided by Ministry/NITI Aayog. Directives and policies helping states talk to each other these issues.

Institutional

- There should be a single body for coordinating climate-related activities in states.
- Academic, research and scientific institutions/experts along with states should be brought on a common platform.
- CC is cross cutting theme - all departments are either impacted or impact climate – need a coordinating body
- Research, Adaptation & Mitigation - dedicated dept

Capacity

- State climate units need to be strengthened
- Panchayats need to be strengthened and engaged
- Education sectors should involve SAPs, SDGs and other interventions to deal with CC – education to act as a key driver to achieve SDG 13
- Impacts of Climate Change needs to be identified at a micro level for each sector

Resource Mobilization

- Additional resources to be identified and mobilised for addressing CC concerns
- Climate change related budgetary provisions to be consolidated
- Private sector should be encouraged to participate in climate action

Information/Database

- Need for standard formats and procedures for data collection/analysis/dissemination at state level
- Need for constructive engagement of media for building climate awareness

- Vulnerability assessment at State Level - quality project formulation ability and capacity at state level is needed
- Gaps between the researchers and implementers – need better linkages

Generic

- Agroforestry needs to be encouraged as an additional carbon sink
- Link SDG 13 with other SDGs especially SDG 6
- Need to improve our language and messaging on impact of Climate change on water. Devolve information to all levels.
- State of Environment Plans to be synchronized with State Action Plans on Climate change

Session 6: Valedictory and Wrap Up

Shri Yuri Afanasiev, UN Resident Coordinator, India – Future Directions

Shri Yuri Afanasiev thanked the organizers for inviting him to this event, He said that the UN is looking at India and betting that the most interesting and replicable development solutions will be born in India in the next ten years. Innovative solutions where you leap frog over generations of technology to create new solutions for the developmental problem. He said that the UN will help you export these new solutions to other parts of the world. It is certainly the case that India will need to find its own path. There is no example from any part of the world that can be followed. India is so specific in so many ways from the climate, to location and the Himalayan system. The challenges that India sees for itself in the next 15 years, whether urbanization or movement of population in terms of internal migrations for labor or the consequence of the blue economy, all are unique.

To think through an implementation plan, details, and the data, the objectives and the targets, will take a lot time of time. He said we can't take too long, but we need to take our time. He also said that the UN is working together with NITI Aayog and MoSPI in trying to develop a dashboard that allows getting some of that data online. As the Indian Statistical Institution develops the missing indicators or creates surveys and other instruments using new tools and technology. He said that we should use quasi data for decision making for purposes until such time.

Dr. T. C. Anant, Chief Statistician of India and Secretary, MoSPI – Special Remarks

The SDGs are really a culmination of our evolving understanding of what development is about, and from the time we began these exercises. The three goals discussed are not just a matter of concern of their respective nodal ministry but rather involve most ministries in order to come up with a comprehensive solution. We are just beginning to comprehend, in many cases, what the problem is. If you had not started talking about it, the rest would never have happened.

Emphasizing on the need for statistics, he said, that a statistician simply takes information from all of you. He then tells you whether you've collected this data in the most scientific way possible, and the best way to make use of the information. He said that it's not just enough

to talk about the policy problem, but you should also talk to the statistician to keep them involved. In this process, our understanding and reporting of data will improve. With regard to the goals and targets he said that we have very little capacity to measure these. Lot more openness is needed about pooling together the pieces of information which each one of us gathers. Sharing of information across a wide range of government and private agencies is a necessity.

Dr. P. K. Anand, Senior Consultant, NITI Aayog – Closing Remarks

Dr. Anand gave the closing remarks and he said that NITI Aayog is committed to SDG implementation. He said that if the intention and policy is good, our fate will also be good. He gave various examples of the work being done by NITI Aayog like the Digi Dhan Melas. He also said that MoSPI has evolved a large number of indicators which have been circulated to the states as well as ministries. They have also done national level consultations where various states and UTs were a part. He congratulated them for the great effort. In the end he thanked all the participants who had come for this two day consultation.

Ms Vishaish Uppal, Director, SL&G, WWF India- Vote of Thanks

The meeting ended with a Vote of thanks by Ms. Vishaish Uppal, WWF India who thanked all participants especially participants from over 20 States and UTs who had come to Delhi to participate in the consultation.

Annexure 1 - Overall Complete Set of Recommendations

Goal 13

- Greening and increase in forest cover will help achieve other goals.
- Awareness on Climate Change is more fashionable than awareness on biodiversity. Holistic approach to achieve SDGs. Biodiversity (State Biodiversity Boards) should be integrated in policy and funding processes.
- Building capacity of Panchayats.
- Restoration of Biodiversity / Greening can help achieve other goals.
- Climate concerns should be integrated in the Environmental Impact Assessment process.
- Guidelines on State Action Plan on climate change by Ministry / Niti Aayog. Directives and policies helping states talk to each other these issues should be established. Linkages between different burning issues like climate change, water, energy, biodiversity should be established.
- Supreme Court judgment – Polluter pays the compensation. Funds under CSR are not used for climate changes issue / some share should be given for restoration.
- SDGs should be linked to people. It should not just be pro-environment. Human development and welfare should be integrated.
- Some of the gaps like Knowledge and institutional capacity need to be filled.
- State Action Plan's should be revised and new knowledge on climate change, vulnerability assessment and green house gas emissions should be added to make them robust.
- State level meetings should be conducted on the same Goals to synergise SDG implementation
- Carbon dioxide to be used as resource.
- Education sectors should involve State Action Plans, SDG's and other interventions to deal with climate change.
- Large saplings should be planted.
- Agro-forestry for farmers should be promoted.
- Vulnerability assessment at State Level should be done.
- Ability and capacity at state level to formulate quality projects.
- One chain of command to channelize integration of the climate change issue.
- Vulture conservation – to make a balance between biodiversity and climate change.
- Partnerships should be promoted.
- There should be communication within state governments on different issues.
- Technical advisory committee should be formed.
- State objectives of all government departments should be integrated in the state action plans on climate change.
- Research needs to be done on the state action plans on climate change (SAPCC).
- State of Environment Report should be synchronized with
    - How they meet the Nationally Determined Contributions
    - Policy recommendations and objectives for each department along with environmental implication /Impact

    - Legislative basis to table in Parliament
    - State advisory of environment coordinating with all departments.
    - Climate Change
- All reports should be synchronized & converged.
- There should be better planning with scientific inputs and accounting.
- Advocacy for protection of wetlands above 100 hectare is important.
- The solutions should be economical, technologically feasible and politically acceptable.
- A dedicated department should be allotted to determine the real cause of environmental degradation.
- Dedicated body should be assigned for research, adaptation and mitigation.
- Universities, organizations etc doing research should come together on a platform.
- NITI Aayog streamline a process based approach.
- Clear guidelines and processes for measuring ecological accounting and ecological footprint.
- Scientific excellence can be achieved through collaborations with universities and organizations.
- Review SAPCC along state line budgets for all departments and correlate financial framework on the following lines.
    - Gap identification
    - Climate aspect
    - Social aspect
    - Ecological cost and benefit of SAPCC
    - Cost of ecosystem services quantified and estimated
- Need for technical approach and fund requirements.
- Bench marking of carbon stock through state of environment reports.
- Additional budgetary resources to be explored and arranged.
- Domestic research should be done to meet international standards inventory.
- Robust data collection should be done followed by planning.
- Study of carbon footprint for every state.
- Determine sources causing climate change both local and external.
- Green Belt should be developed.
- Value grass species around glaciers which will help in regulating temperature.
- Indigenous grass species planting should be done.
- Ownership should be given to district level officers for
    - Traditional rights
    - Regulation of local activities causing climate change
    - Regulation of activities in indigenous forests
- Fragile ecosystem must be protected.
- Rational and strategic planning for development activities.
- Downstream impact of harmful activities should be minimized.
- Some of the key gaps that need to be addressed are –
    - Lack of institutional resources
    - Knowledge at local level
    - Dedicated team of technical's and experts to deal with SDGs
- SDGs to be taken as priority in planning process.
- Development of research capacity at local level.
- Partnership with other institutions like educational institutes and other line departments.
- Uniform institution structure at state level to achieve these goals.

- Integration of environment studies and issues in educational systems.
- Enhanced focus on Freshwater and marine. Need to quantify usage.
- Link SDG 13 with other SDGs especially SDG 6.
- We need to improve our language and messaging on impact of climate change on water. Need to devolve information to different levels such as District-Block-Panchayat- Schools-Communities.
- Building resilience should also focus on securing mountain forests both Himalayas and Southern Hills.
- Impacts of Climate Change need to be identified at a micro level for each sector.
- Implications of macro policy level issues such as interlinking of rivers needs to be looked at in more detail.
- Disaster risk assessment is a big challenge both at state and district level.
- System of capturing losses for various kinds of disasters is weak and lack consistency.
- Early warning systems need improvement. Review existing infrastructure, technology deficit and integrate data on the same.
- Absence of uniform data makes it difficult to assess risks.
- Take available vulnerability assessments; integrate it with plans of nodal climate change officers of districts.
- Climate proof disaster management plans at state/district level.
- Evidence base needs to be generated to capture knowledge in the communities. This can be done by integrating biological sciences and biological indicators such as range shifts, etc.
- This evidence base should be used to inform policy and to develop relevant action plans.
- Academic Research should be simplified/made easy and disseminated effectively to the masses to generate public awareness.
- Inter operability of collected and analyzed data should be used as the evidence base.
- Capacity Building across sectors on issues related to impacts of Climate Change and on resilience.
- Integrate targets of SDG 13, 14 & 15 with international agreements and corresponding action plans. E.g. Aichi targets and NBSAP
- Capacity building of institutions and communities though development of business models for specific schemes.
- Integrate community concerns, budgetary deficits, etc.
- Specific customized technological innovations across all scales.
- Strengthen State level scientific institutions to inform Policy (at Centre also).
- Specific consideration for gender and children with respect to migration and rehabilitation related to climate change.
- Linkages need to be established to address the gap between the researchers and implementers
- Research needs to be simplified for implementers with less scientific jargon.
- Need-based research should be done.
- Other stakeholders such as industry, transportation and manufacturing etc should be on board.
- Hydro Fluoro Carbon, Montreal protocol and Black Carbon should become part of the discussion on climate change.
- Media's role in national communication strategy should be developed.
- Education should be encouraged as a key driver to achieve SDG.
- Sustained man-power planning for implementing strategies on climate change.
- Jhum cultivation to be regulated.

- Central Knowledge Bank backed with experts should be formed.
- Convergence of schemes like short term, medium term, long term should be done.
- Climate change oriented budget should be allocated.
- Sharing of best practices should be done.
- Ownership of informed and standard system for reporting by states.
- Agro-forestry needs should be encouraged.
- Energy efficiency needs to be optimized.
- Nationally Determined Contributions should be disintegrated to state and union territories.
- Rehabilitation of degraded forests through carbon markets.
- SAPCC should be tabled in assembly.
- Getting climate information to users (e.g. farmers).
- Capacity building of states to identify vulnerabilities and include them in SAPCC.
- Synergies and trade-offs between objectives (multi-objective approach) is needed for mainstreaming.
- Breaking down departmental silos is needed.
- Strengthening of the state climate unit (advisory – value add)
- Build interface with scientific institutes.
- Technical advisory committee at state level.
- CAMPA funds can be used at state level.
- Risk assessment in areas exposed to hydro-meteorological hazards (hazard risks, exposure and vulnerability).
- Consistent systems for capturing damage and losses (of high resolution and lowest feasible administrative level) that is not uneven.
- Risk transfer mechanism, particularly for the most vulnerable
- Sector specific risk reduction solutions to be developed.
- Invest in local preparedness.
- Build on successful community based disaster risk reduction initiatives.
- Better availability and accessibility of climate change data, projections and tools for disaster risk reduction stakeholders.
- Mainstreaming disaster risk reduction in rural and urban development policies, schemes, programmes and projects.

Goal 14

- Focused discussion of fishing, over-fishing between ministry of earth sciences, MoEFCC – how to go ahead with SDG 14.
- Fund allocation should not be based on political considerations.
- Waste disposal and contamination, debris in marine ecosystems and micro plastics are major concerns.
- Reviewing the overall governance system that affect SDG 14 implementation.
- The current administrative set up in the Government of India needs to seriously reconsider and give more focus and importance to fisheries
- Improved coordination between Sectors/Ministries/Departments using marine/coastal resources and space.
- Strengthening regulatory framework—both laws and implementation mechanism; overlap of jurisdiction to be sorted out; inter-state issues also need to be sorted out.

- Environmental clearances and post clearance follow up are both weak. The marine ToRs are inadequately framed; clearance bodies and their processes are weak. Follow up almost non-existent.
- Top-down fisheries management to be replaced by joint management of fisheries with fishermen issues.
- State level meetings should be conducted on the same Goals to synergise SDG implementation

- Improve information available for resource management—with disaggregated information. Valuation of coastal and marine resources essential for go-no go decisions on projects impacting marine and coastal environment
- Stringent implementation of the existing regulations.
- Centralized vessel identification and monitoring system to be developed.
- Public availability of information of ecologically sensitive zones (incl. but not limited to MPAs).
- Address poaching, by-catch, accidents of mammals, top predators and turtles.
- Species specific marine fishing ban based on life-cycle.
- Ecosystem-based fishery management (quota, HABs, hypoxia, jellyfish).
- Eco-tourism and Citizen Science for monitoring, awareness and alternate livelihoods.
- Our challenge in the next decades is to realize the potential economic benefits of the marine estate while maintaining social and environmental values.
- Policy-makers and managers are required to responsibly evaluate the tradeoffs between economics, social values and environmental sustainability.
- But the difficulty arises due to the lack of knowledge about our vast and varied marine systems, their resources, and how their ecosystems function.
- Already, the impacts of ocean and coastal change are being felt through increased coastal flooding, inundation and erosion, increasing frequency and intensity of extreme events, and growing effects on ocean ecosystems including acidification of the ocean and coral bleaching.
- These threats have profound and growing impacts on our society.
    - Capacity building for stakeholders
    - Capital
    - Coherence, convergence and coordination between state and centre, ministry and departments
    - Commitment
    - Marine spatial planning
    - Link stakeholder and resources
- Desiltation of river confluences (under sagarmala).
- No data on how to set field strength across states.
- Report done in 1977 – regulations have not been made by states.
- Impact of coastal industrialization (non-polluting and cost) on fishing.
- Subsidy regime for fishermen needs to be rationalized.
- Wildlife Protection Act not designed for marine conservation.
- National planning for conservation of aqua-ecosystems.
- Marine debris and anthropogenic underwater noise – mitigation strategy needs to be developed.
- Ministry of Agriculture and Ministry of Earth Sciences to have a separate session on SDG 14
- No legislation on marine debris/micro plastic.
- Finalization of marine fish policy at the earliest for deep sea fish.
- Foreign collaboration of development of deep sea fishing and capacity building.

- Public Private Partnership mode development and Fisheries involving Foreign/Indian investors in islands.
- Development of mariculture/cageculture involving Indian/foreign investors – sustainable by conserving fragile ecosystems of islands.
- Due to low population, manpower crises for capturing/culturing of fish, mostly govt. servants/settlers doing agriculture, fishing part time.
- Young generation not accepting fishing in capture/culture, looks for govt. jobs/hard cash immediate profit jobs like conducted tours for visiting tourists/sports fishing etc.
- Ministry of Agriculture to develop deep sea fishing with infrastructure etc including harbors.
- Poor structure of department of fisheries with about 200 staff for monitoring control and surveillance of fisheries in the islands.
- Lot of expert committee reports for department of fishing in A&N islands but lack of manpower to take of fishing development.
- A specific plan by Ministry of Agriculture to develop fisheries in A&N islands with NITI Aayog
- SDG 14.4 & 14.6 – Action Plan
    - Effective enforcement and implementation of the MFR Act and its rules by all the respective coastal states.
    - Registration of all the fishing vessels which include trawlers, purse-seiner, catamaran, country craft and a canoe under MS Act.
    - Implementation of uniform monsoon fishing ban in west coast of India w.e.f 1st June to 31st of every year.
    - Monitoring the movement of the fishing vessel by visiting vessel tracking system/ATS in the control room of respective state.
    - Setting up a separate wing for enforcement of MFR Act and regular patrolling in terrestrial water in order to curb the illegal fishing activities in sea.
    - Impose ban on LED light fishing.
    - Prohibition of night fishing from 7 pm to 5 am in the terrestrial water of respective state.
    - Fishing vessel having more than 20 meters OAL shall not be allowed to fish within the terrestrial water and state and these vessels allowed to do fishing exclusively in EEZ.
    - No new permission shall be allowed to construct new vessels (i.e. trawler and purse-seiner) and only replacements of old/non seaworthy fishing vessels are allowed.
    - Prohibition of catching of juveniles of fishes.
    - Purchase of new petrol vessels with latest technology for patrolling the sea for reporting illegal fishing activity.
    - Ministry of Agriculture shall provide fund for recruitment of official, purchase and patrol vessel so that each state shall prepare their action plan for curbing overfishing, illegal, unreported fishing.
    - Complying to the size of the fishing vessel and the capacity of the engine/motor on fishing vessel.
    - One family will be eligible for registering of only one fishing vessel.
    - Subsidy shall be granted to only one vessel of the fisherman irrespective of no. of fishing vessels he/she owns.
    - Fishers shall be provided subsidy only for obtaining the document of income certification from concern authority.
- Fishery related activities specifically inland sector should be suitably included in SDG targets on this sector can play vital role in creating sustainable livelihood which lacking in the document and inclined towards forest.

- There is a need to make synergy with line department while preparing state specific plans to achieve goals.
- Goals and targets as indicated in SDG-14, especially 14.4, 14.6, 14.7 and 14.b need to be incorporated in the "National Policy on Marine Fisheries" (national policy as well as state policy) and suitably addressed n the implementation plan(s) under the National Marine Fisheries Policy.
- Action in various points of the SDG 14 are pertaining to different Ministries/Departments including DADF/MoA &FW, MoES, MoEFCC and also Coastal States Governments, Ownership of various action points should be decided and informed to the concerned Ministry/Dept/State Govt.
- Action points in SDG-14 are overarching and require proper coordination and joint action by different departments/agencies. Therefore, it would be appropriate if a committee/body of those various action/plans to be undertaken on SDG.
- Adequate enabling provisions duly supported by way of Acts/Guidelines and funding arrangements to implement targets of SDGs are vital to ensure implementation and achieving SDGs.
- A clear "National Vision: on SGD-14 may be evolved from which roles and responsibilities of different agencies with time limits and roadmaps may be indicated to track the progress on implementation of SDG.

Goal 15

- Convergence needs to be done at all levels.
- Biodiversity concerns need to be integrated in all sectors.
- Enhanced Public Private Participation in Integrated Natural Resource Management. Convergence, synergy and coherence among departments (especially between Forest Dept and Water Resources Dept) is absent.
- Capacity building at three tier level (state, municipalities and field staff) for implementation and data compilation.
- Wetlands- Promote value based conservation of wetland and biodiversity. Integrate state level and international funding to develop comprehensive work plans for wetland management.
- Catchments- Water catchment and production value of Madhya Pradesh is important for the entire region. Hence Forest catchments need immediate attention.
- The budgets of State Government should have a separate chapter on ecology explaining linkages with all other sections.
- The implementation of SDGs will need more structure and direction at the ground level.
- Usually the reference points for SDGs implementation are only MEAs; but our trade agreements and investment opportunities directly impact all SDG commitments.
- MEA's Model Bilateral Investment Treaty must be in line with SDGs.
- MoSPI can develop a list of non-negotiable with MoCI, to leverage SDGs in our trade negotiations and develop a framework to discuss the impact of FTAs/BITs on sustainable development.
- The Environmental Goods Agreement that developed countries are seeking to multilateralise through the WTO must be resisted. No 'new issues' should be put on the WTO till the pending DOHA Development Round of Global trade talks is successfully concluded, with special reference to the genuine developmental needs of developing countries like India
- Need to develop ownership for the Goal.
- Do existing institutions, legal structure support such ownership of goal?
- The goal needs to be interpreted in the local level.

- SDG 15 has to be holistic approach. Need to list the key stakeholders of SDG 15 and bring them on board.
- **Policies pertaining to forest:**
    - Grazing Policy
    - Fuel Wood Forest Policy – For example, Prime Minister Ujjwala Yojana is there but it needs to penetrate into the interiors.
    - Production forestry is given least weightage. That needs to be increased.
    - Draft forest policy is on the anvil.
    - Forest policy should not be uniform for the whole country. For example, regions like North East have special requirements which need to be catered to. Mizoram has water set community in which there is bottom up approach for planning. The community takes decisions for land usage. Local level land use plan as an experiment.
- **Environmental Policies**
    - Environmental cost put as a charge on the developmental. Some states like Karnataka already in the process of doing this.
    - Environmental Clearance – Converge the clearance process into a single holistic one. Evaluation for this should take place through 1 index. There should be a sustainability clearance.
- **Agriculture**
    - Dry land policy should be put into place. Concern area: Saurashtra region into Gujarat.
    - Examine the impact of agriculture into protected areas. Community participation effective mechanism for the same.
    - Incentives should be provided for people practicing responsible agriculture.
- **Landscape Approach**
    - Need to look at landscape level planning. Bring more areas into the ambit of planning – like fisheries, forests, agriculture, water etc.
    - Single Steering Committee at the State level to facilitate the Landscape Approach.
    - Sensitization of officials working at the ground level toward landscape approach to planning.
    - Mapping of areas need to be done – identify degraded areas.
- **Terrestrial System**
    - Local Institutions have had robust constitutional role to play. Evaluation of PRI standing committee etc required – are they working in their full capacity.
- **Mountains**
    - Man Made forest fires. Problem of myths in Uttarakhand and Himachal Pradesh. NGT – Every State to have fire management plan.
    - Need awakening programme at grass root level.
    - Need to combine traditional knowledge with modern techniques to combat the challenges of climate change. Example, receding apple cultivation in the hills.
- Policies need to mention about **Cumulative Impact Assessment.**
- **Waste Management –**
    - Need technology which can be adapted into environment, user friendly so that each stakeholder can adapt it easily.
- **Combat Desertification**
    - Need to strengthen implementation of soil health cards. Monitoring and Evaluation required.
    - Areas under plants like Bamboo, Eucalyptus, Popular needs to be increased.

- **Wetlands**
    - Draft policy for wetland not very effective. Conservation issues have been diluted. Wetland policies need better governance.
- Need to integrate the SDGs.
- Each activity needs to be measured, there should be measurable output for each activity planned and indicators should be tracked.
- Conceptualization and integration at local level
- Landscape-level nodal agency –
    - Integration of plans/initiatives of various department such as agriculture, horticulture etc.
    - Local self government as nodal agency of a landscape such as in Gujarat and Uttarakhand (van-panchayats)
    - Locally accepted depending of agency or FD as nodal agency whose stakes are more
    - Society driven conservation of species
- Management plan for species, ecosystems, conservation or reintroduction as relevant for region.
- Management of invasive species needs innovative approaches.
- Ecological Services Fee may be initiated.
- Environmental Impact Assessment (EIA)
    - Robust institutional mechanisms to stop destruction from development projects.
    - Need for dialogue on how development projects should rolled out in different ecosystems.
    - Mitigation measures in EIA must be followed.
    - Compliance and implementation mechanisms are very weak.
    - Standardization of ameliorative protocol – project specific to prevent manipulation.
- The implementation of SDGs will need more structure and direction at the ground level.
- SDG 15 has to be holistic approach. Need to list the key stakeholders of SDG 15 and bring them on board.
- Role of forest officer to be expanded (structural change) to environment officer.
- Guidelines for development of indicators and capacity building for baseline.
- State of Environment report should take cognizance of SDGs and should be timed and coordinated.
- Case study on various innovation and initiatives in policies by Forest Department such as Forest Development Tax, 1975 should be highlighted.
- Data on existing ecosystems and species should be complied to manage and restore them.
- Linkages between Forest Department (FD) and Universities for research on invasive species and populations and other aspects of ecosystems.
- Linkages between FD and conservation organizations to ensure that there is better exchange of information and training of foresters.
- Life cycle assessment of products for disposal/recycle.
- When we use technology we should look at impact on ecology.
- Bridges for wildlife to cross over roads and railway tracks.
- Education for children should include value of ecosystem.
- Need awakening programme at grass root level.
- Do existing institutions, legal structure support such ownership of goal?
- The goal needs to be interpreted in the local level.
- Restoration, reforestation of degraded forests
- Life under terrestrial water needs to be considered.

- Ecological impact of how resources are being spent.
- Reforestation and restoration of degraded forests.
- Life in terrestrial water systems (SDG 15)

Annexure 2 - States Participation

S.No.	State	Number of Participants
1.	Andaman & Nicobar	3
2.	Andhra Pradesh	3
3.	Arunachal Pradesh	1
4.	Bihar	1
5.	Delhi	4
6.	Goa	1
7.	Gujarat	9
8.	Haryana	1
9.	Himachal Pradesh	1
10.	Jammu & Kashmir	3
11.	Kerala	3
12.	Madhya Pradesh	5
13.	Maharashtra	1
14.	Manipur	6
15.	Meghalaya	1
16.	Mizoram	2
17.	Orissa	2
18.	Punjab	4
19.	Rajasthan	3
20.	Telangana	2
21.	Uttar Pradesh	2
22.	Uttarakhand	1

Annexure 3 - List of Participants

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
1	Mr. K Sarabhai	Centre for Environment Education	Director	Ahmedabad	kartikeya.sarabhai@ceeindia.org	9825006086
2	Dr. J C Kuniyal	G.B. Pant National Institute of Himalayan Environment & Sustainable Development	Scientist – F	Almora	jckuniyal@gmail.com	9418154911
3	Dr. Alok Saxena	Andaman & Nicobar Administration	Principal Chief Conservator of Forests & Principal Secretary (Env. & Forests)	Andaman & Nicobar	dr.aloksaxena@gmail.com / pccfani@gmail.com	9434289198
4	Mr. D M Shukla	Andaman & Nicobar Administration	Secretary, S& T, and Tribal Welfare	Andaman & Nicobar	shukla322@yahoo.co.uk	-
5	Mr. J Chandra Sekhar	Dept. of Fisheries, A & N	Director of Fisheries	Andaman & Nicobar	dirfish@gmail.com	9434282376
6	Mr.K S R Raju	Dept. of Fisheries, Govt. of AP	Additional Director	Andhra Pradesh	comfishap@gmail.com	9440814739
7	Mr. K SreeRama Murty	A. P. Pollution Control Board	Senior Environment Engineer	Andhra Pradesh	vsp.zo.see@pcb.ap.gov.in	9866776713
8	Mr. R Veerendra Kumar	A. P. Pollution Control Board	Junior Scientific Officer	Andhra Pradesh	rveerendra@appcb.gov.in	9177303298
9	Mr. Dohu Robin	Environment and Forests	Deputy Director & Nodal Officer	Arunachal Pradesh	robindohu@gmail.com	9436041283
10	Mr. Bharat Jyoti	Env. & Forest Dept, Govt of Bihar	Additional Principal Chief Conservator of Forests (CAMPA) & Director (Eco & Env)	Bihar	directorecologybihar@gmail.com / apccfcampa.bih@gmail.com	8986153134
11	Mr. Manoj Chamoli	National Biodiversity Authority	Liaison Officer	Chennai	chamoli.manoj@yahoo.com	9654428161
12	Mr. Dr. J Soundrapandi	National Biodiversity Authority	Project Officer	Chennai	ecmedplant@nbaindia.in	9841951267
13	Dr. Y S Yadava	Bay of Bengal Programme	Director	Chennai	yugraj.yadava@bobpigo.org	90141042235
14	Ms. B Meenakumari	National Biodiversity Authority	Chairperson	Chennai	chairman@nbaindia.in	9650934444
15	Dr. V B Mathur	Wildlife Institute of India	Director	Dehradun	dwii@wii.gov.in	9412054648
16	Dr. Anil Kumar	Dept. of Environment, Govt. of Delhi	Director	Delhi	dr.anilkumardelhi@gmail.com	9717593505
17	Mr. S K Goyal	Delhi Pollution Control Board	Senior Environment	Delhi	hq2see@yahoo.com	9878950505

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
			Engineer			
18	Dr. B C Sabat	Dept. of Environment, Govt. of Delhi	Senior Scientific Officer	Delhi	bc.sabat@gov.in	9717593506
19	Dr. Chetna Anand	Dept. of Environment, Govt. of NCT of Delhi	Scientist	Delhi	dr.chetnaanand@gov.in	9717593542
20	Mr. Chandrakant Vely	Fisheries, Govt. of Goa	Deputy Director	Goa	cvely@yahoo.com	9923499851
21	Mr. Shwetal Shah	Dept. of Climate Change	Technical Advisor	Gujarat	spshah987@gmail.com	9904085859
22	Mr. Mukesh Shah	Dept. Of Climate Change	Joint Secretary	Gujarat	ds-ccd@gujarat.gov.in	9824505409
23	Mr. M. Shahid	Commissioner of Fisheries, Govt. of Gujarat	Commissioner	Gujarat	commi_fisheries@gujarat.gov.in	9978407298
24	Mr. D M Thaker	Gujarat Pollution Control Board	Environment Engineer	Gujarat	devangthaker65@gmail.com	9825160110
25	Mr. Sagar Patel	General Administration Department (Plng.), Gujarat	Senior Project Consultant	Gujarat	ro4.hd@gujarat.gov.in	9979534943
26	Dr. Jagdish Prasad	Gujarat State Forest Department	Additional Principal Chief Conservator of Forests	Gujarat	apccf.fst.sf@gmail.com	9978406168
27	Mr. Ravi Dutt Kamboj, IFS	Gujarat Ecological Education & Research Foundation	Director	Gujarat	rdkamboj@yahoo.com	9825049426
28	Mr. S B Patil	Gujarat Energy Development Agency	Deputy Director	Gujarat	sbpatil@geda.org,in	9909900652
29	Mr. Rushiraj Parmar	Govt. of Gujarat	Consultant, Porbundar	Gujarat	parmarrushiraj@gmail.com	9725903263
30	Mr. Vivek Saxena	Govt. of Haryana	Additional Resident Commissioner	Haryana	viveksax1@gmail.com	9999295320
31	Mr. A C Sharma	Forest & Environment	Additional Principal Chief Conservator of Forests	Himachal Pradesh	sharmaamar92@yahoo.com	9418033304
32	Dr. Satheesh Shenoi	Indian National Centre for Ocean Information Services	Director	Hyderabad	shenoi@incois.gov.in	9441013377
33	Mr. Suresh Chugh	Department of Wildlife Protection, Govt. of J&K	Pr. Chief Conservator of Forest/Chief Wildlife Warden	Jammu & Kashmir	sur3294@rediffmail.com	9419195708
34	Mr. B M Sharma	State Biodiversity Board, Govt. of J&K	Member Secretary	Jammu & Kashmir	bmsharma47@yahoo.com	9419144300

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
35	Mr. Roshan Jaggi	J & K Forest Dept.	Chief Conservator of Forests, Jammu	Jammu & Kashmir	roshanjaggi@gmail.com	9419194268
36	Mr. B N Ramesh Kumar	Karnataka State Pollution Control Board, Bangalore	CEO	Karnataka	ceo@kspcb.gov.in	9845399611
37	Mr. C Jayaram	Karnataka Forest Dept.	Additional Principal Chief Conservator of Forests	Karnataka	cjayaram@outlook.com	9900214158
38	Mr. B K Dikshit	Karnataka Forest Dept.	Additional Principal Chief Conservator of Forests (FRM)	Karnataka	bkdikshitifs@gmail.com	9448105490
39	Dr. B M S Rathore	ICIMOD	Chief Policy Advisor	Kathmandu	brij.rathore@icimod.org	9958309008
40	Mr. S C Joshi, IFS	Kerala Forest Dept.	PCCF and HOFF	Kerala	joshisc22@gmail.com	9447979001
41	Mr. Paramjit Singh	Botanical Survey of India	Director	Kolkata	pschanna58@gmail.com	9432227944
42	Mr. Saransh Bajpai	Environment Planning & Coordination Organisation, Dept. of Environment, Govt. of MP	Subject Expert	Madhya Pradesh	saransh.bajpai@gmail.com	9425230187
43	Mr. R Sreenivasa Murthy	Madhya Pradesh State Biodiversity Board	Member Secretary	Madhya Pradesh	mpsbb@mp.gov.in	9424790077
44	Mr. Y Satyam	Forest Dept., MP	APCCF, Development	Madhya Pradesh	apcefdev@mp.gov.in	9977995924
45	Dr. Bakul Lad	MP. State Biodiversity Board	Manager	Madhya Pradesh	bakullad@yahoo.com	9826450622
46	Mr. Lokendra Thakkar	Dept. of Environment, GoMP	General Manager	Madhya Pradesh	lokendrathakkar@gmail.com	9826377429
47	Dr. Sunil M Deshpande	Govt. of Maharashtra, Fisheries	Regional Dy. Commissioner Of Fisheries, Konkan Region, Mumbai	Maharashtra	rdcfishkonkanm@yahoo.com	8976086998
48	Dr. Braja Kumar	Environment Dept., Govt. of Manipur	Deputy Director	Manipur	brajakumar_t@yahoo.com	9436035080
49	Mr. T H Bhogen	Environment Dept., Govt. of Manipur	Deputy Director	Manipur	bthingumba@gmail.com	9863151180
50	Mr. P N Prasad	Forest Dept., Manipur	PCCF	Manipur	pnprasad85@gmail.com	9436236381
51	Mr. H Biramani Singh	Fishery Dept, Manipur	Joint Director	Manipur	biramani@yahoo.com	9856090529
52	Mr. Vivekananda Sharma	Directorate of Env., Govt. of Manipur	Deputy Director	Manipur	vivekph2003@yahoo.com	9774417927
53	Dr. Homeshwor Singh	Environment Dept.	Director	Manipur	mhomeshwor@gmail.com	9862093005

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
54	Mr. P K Agrahari	Forest Dept., Govt. of Meghalaya	Planning Officer (Forests)	Meghalaya	pawanagrahari2010@gmail.com	9810791920
55	Mr. Ritu Raj Singh	Govt. of Mizoram	Public Information Officer, Research & Development Circle	Mizoram	ifsrituraj@gmail.com	9436174307
56	Mr. N Ranjit Singh	Power and Electricity Dept. Govt of Mizoram	Supdt. Engineer	Mizoram	nepramr@gmail.com	9436140101
57	Ms. Radhika Mathur	National Foundation for India	Programme Officer, Sustainable Development Goals	New Delhi	radhika@nfi.org.in	9899758623
58	Dr. D N Singh	Central Zoo Authority, MoEFCC	Member Secretary	New Delhi	dnsingh87@gmail.com	9599450977
59	Mr. V.N. Angina	NITI Aayog	Research Officer (Research & Development)	New Delhi	vn.angina@gov.in	9958617441
60	Mr. Yogesh Kumar Singh	NITI Aayog	Young Professional	New Delhi	yogesh.singh13@yahoo.com	9953042494
61	Mr. Davendra Verma	MOSPI	Deputy Director General (Social Statistics Division)	New Delhi	davendra.verma@gov.in	9868501919
62	Mr. Neeraj Srivastava	NITI Aayog	Director	New Delhi	neeraj.srivastava@nic.in	9711701680
63	Dr. Krishna Kumar	MOSPI	Deputy Director General	New Delhi	ddgkk.ssd@gmail.com	9350107324
64	Dr. Sanjay Pandey	MOAFW, DADF	FRIO	New Delhi	sanjay_rpandey@yahoo.co.in	9868334244
65	Mr. Padma Kant Jha	NITI Aayog	Deputy Advisor	New Delhi	jha.pk@nic.in	9868078645
66	Ms. Aakriti Bhardwaj	UNESCAP	Intern	New Delhi	aakriti.bhardwaj18@gmail.com	9560661577
67	Mr. Karan Shah	UNDP	Technical Support Officer	New Delhi	karum375@gmail.com	9016060798
68	Dr. S Saha	Research & Information System for Developing Countries	Asst. Prof	New Delhi	s.saha@ris.org.in	9818060443
69	Mr. Dinesh Dhawan	NITI Aayog	Senior Research Officer	New Delhi	dinesh.dhawan@nic.in	23042538
70	Mr. Victor Dufort	UNDP	Intern	New Delhi	victor-dufort@vavnel.fr	8826654899
71	Mr. Sudhir Vyas	WWF India	Advisor (IFS Retd)	New Delhi	vyas.sudhir@gmail.com	8860600686
72	Mr. Mitter Sain	MOSPI	Director	New Delhi	mittersain@gmail.com	9810214696
73	Ms. Urvashi Prasad	Office of Vice Chairman, Niti Aayog	Public Policy Specialist	New Delhi	urvashi.prasad@nic.in	9810096951

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
74	Dr. Shivraj Sahai	National Disaster Management Authority, MHA	Sr. Consultant Climate Change	New Delhi	shivraj.sahai@gmail.com	9312103210
75	Ms. Aastha Dang	NITI Aayog	Young Professional	New Delhi	aastha.dang@gov.in	9811747755
76	Dr. K V Sharma	MoES	Scientist - F	New Delhi	venkat_dod@nic.in	9968293675
77	Mr. Chandrajit Singh Bhatia	NITI Aayog	Senior Research Officer	New Delhi	cs.bhatia@nic.in	9868454444
78	Mr. Nyingtob Pema Norbu	UNESCAP	Associate Economic Affairs Officer	New Delhi	norbun@un.org	9643477412
79	Mr. Farhad Vania	GIZ India	Portfolio Mgt. Advisor	New Delhi	farhad.vania@giz.de	9899110005
80	Dr. C R Magesh	National Museum of National History, MOEFCC	Scientist	New Delhi	crmageshcnh@gmail.com	9831568758
81	Dr. Anita Kakkar	NILERD	Assistant Director	New Delhi	anitakakkar2004@yahoo.co.in	9650559084
82	Dr. N P Singh	UNIDO, New Delhi	Sr. Technical Advisor	New Delhi	n.singh@unido.org	9818200028
83	Dr. Rashmi Agarwal	NILERD	Consultant	New Delhi	rashmi_agarwal56@rediffmail.com	9818293990
84	Dr. Sunil Agarwal	Department of Science & Technology, MOST	Scientist	New Delhi	sunilag@nic.in	9999689732
85	Mr. S N Mishra	NITI Aayog	Consultant	New Delhi	sundar.mishra@nic.in	9560827755
86	Ms. Gayatri Pandey	NILERD	Joint Director	New Delhi	gpandey1304@gmail.com	9968375368
87	Mr. V S Gaur	NITI Aayog	Joint Secretary	New Delhi	vikramsingh.g@gov.in	9899971200
88	Mr. Swastik Das	UN RCO	Economist	New Delhi	swastikd88@gmail.com / swastik.das@one.un.in	9007003732
89	Ms. Pratima Gupta	NITI Aayog	Director	New Delhi	pratimagupta@nic.in	9582168642
90	Mr. M Senthil	NITI Aayog	PS to CEO	New Delhi	-	9818185283
91	Mr. Manjeet S Saluja	WHO	National Prog. Off	New Delhi	salujam@who.int	8800495778
92	Mr. Ramesh Chand	NITI Aayog	Member Secretary	New Delhi	rc.niti@gov.in	-
93	Mr. Amitabh Kant	NITI Aayog	CEO	New Delhi	amitabh.kant@nic.in	-
94	Mr. Jitendra Kumar	NITI Aayog	Advisor	New Delhi	j.kumar@nic.in	-
95	Dr. P K Anand	NITI Aayog	Sr. Consultant	New Delhi	Anandpk@nic.in	-
96	Dr. Ashok Jain	NITI Aayog	Advisor	New Delhi	ashok.jain59@nic.in	-
97	Ms. Kratika Mittal	NITI Aayog	Senior Research Officer	New Delhi	kratika.mittal@nic.in	9350340973
98	Mr. Rishu Garg	MoPR	Technical Officer	New Delhi	rishu.garg@undp.org	9910849280

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
99	Ms. Manisha Choudhary	UNDP	Programme Officer	New Delhi	manish.choudhary@undp.org	7289973387
100	Mr. Naaz Rizvi	National Museum of National History, MOEFCC	Scientist E.	New Delhi	naazrizvi@yahoo.co.in	9868244086
101	Mr. Nilanjan Ghosh	WWF - India	Sr. Econ. Advisor	New Delhi	nilanjan.ghosh@gmail.com	833404468
102	Mr. Raman Mehta	Vasudha Foundation	Advisor	New Delhi	ramanmehta@gmail.com	9810345439
103	Mr. A K Mangotra	Govt. (retd.)	UNEP	New Delhi	ashok.mangotra@gmail.com	9810791920
104	Mr. N K Dubash	Centre for Policy Research	Senior Fellow	New Delhi	ndubash@gmail.com	-
105	Mr. Ankit Bhardwaj	Centre for Policy Research	Research Associate	New Delhi	ankitbhardwaj@cprindia.org	-
106	Mr. Jaimon Uthup	NITI Aayog	Associate (SC & DP)	New Delhi	jaimon.uthup@undp.org	9899880251
107	Dr. S Satapathy	UNDP	Technical Advisor	New Delhi	drs.satapathy@undp.org	9810967278
108	Ms. Prachi	MoP	Consultant	New Delhi	-	9958612223
109	Prof. S K Mohanti	Research & Information System for Developing Countries	Professor	New Delhi	skmohanti@ris.org.in	9971664571
110	Dr. R Warrier	UNEP	Consultant	New Delhi	warrier@nic.in	9818421364
111	Mr. Mohammad Taher	UNESCAP	Consultant	New Delhi	gswa.intern@un.org	8376026921
112	Mr. Sandip Keswani	KPMG	Consultant	New Delhi	sandipk@kpmg.com	9810517801
113	Mr. Sudhir Kumar Singh	UNIDO	Global Environment Facility Coordinator	New Delhi	s.singh@unido.org	9811882878
114	Mr. Advait Mohole	KPMG	Consultant	New Delhi	advaitmohole@kpmg.com	8800281272
115	Mr. R R Rashmi	MOEFCC	Special Secretary & Mission Director	New Delhi	rr.rashmi@nic.in	-
116	Mr. Anand Kumar	UNDP	National Project Manager	New Delhi	anand.kumar@undp.org	9899882390
117	Ms. Anu John	UNDP / MOEFCC	Consultant	New Delhi	anu.john@undp.org	9910517217
118	Ms. Vidya Soundarajan	Oxford Policy Management, India	Consultant	New Delhi	vidyasoundarajan@actiononclimate.today	9884839490
119	Mr. Harish	Development Monitoring & Evaluation Office, NITI Aayog	J.S.O	New Delhi	harish.dadlani@nic.in	9818107369
120	Mr. V K Sharma	NITI Aayog	RO (TC)	New Delhi	virendra888@yahoo.co.in	9891719138
121	Mr. Bhuwan Chandra	Development Monitoring & Evaluation Office, NITI Aayog	Economic Officer	New Delhi	bhuwan.c@nic.in	9968300119
122	Mr. Vishal	DRDA	IEC Consultant	New Delhi	vishal007sinha@gmail.com	7573955218
123	Mr. Rijit Sengupta	Center for Responsible	COO	New Delhi	rijit.sengupta@c4rb.org	9829285928

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
		Business				
124	Ms. Shubhda Hirawat	Office of MP, P D Rai	Legislative Assistant to Member of Parliament	New Delhi	hirawatshubhda@gmail.com	9711930168
125	Dr. Ashok Khosla	Development Alternatives	Chair Person	New Delhi	akhosla@devalt.org	9717200048
126	Ms. Ridhima Sud	MOEFCC	Technical Expert	New Delhi	pridhima.suf@gov.in	9810888125
127	Ms. Divya Datt	The Energy & Resources Institute	Fellow & Associate Director	New Delhi	divyad@teri.res.in	9811683324
128	Dr. Prashant Gargava	Central Pollution Control Board	Additional Director	New Delhi	prashant.cpcb@gov.in	9990870057
129	Mr.Ravi Singh	WWF India	Secretary General & CEO	New Delhi	RaviSingh@wwfindia.net	
130	Dr. T S Panwar	WWF India	Director, Climate Change & Energy	New Delhi	tspanwar@wwfindia.net	
131	Ms. Suchismita Mukhopadhyay	WWF India	Associate Director, Climate Change & Energy	New Delhi	smukhopadhyay@wwfindia.net	
132	Mr. Bhaskar Padigala	WWF India	Senior Programme Officer, Climate Change & Energy	New Delhi	bpadigala@wwfindia.net	
133	Ms. Divya Joy	WWF India	Communications Officer, Climate Change & Energy	New Delhi	djoy@wwfindia.net	
134	Dr. G Areendran	WWF India	Director, IGCMC & IT	New Delhi	GAreendran@wwfindia.net	
135	Mr. Puga Zenthi	WWF India	Programme Officer, Climate Change & Energy	New Delhi	pdhananjayan@wwfindia.net	
136	Dr. Sejal Worah	WWF India	Programme Director, WWF	New Delhi	sworah@wwfindia.net	
137	Dr. Diwakar Sharma	WWF India	Director M&E	New Delhi	dsharma@wwfindia.net	
138	Ms. Bhavna Prasad	WWF India	Senior Advisor	New Delhi	bprasad@wwfindia.net	
139	Mr. Suresh Babu	WWF India	Director, River Basins & Water Policy	New Delhi	suresh@wwfindia.net	
140	Dr. Dipankar Ghose	WWF India	Director, Species & Landscapes	New Delhi	dghose@wwfindia.net	
141	Mr. Yash Magan Shethia	WWF India	AD, Species	New Delhi	ymshethia@wwfindia.net	

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
142	Ms. Urvana Menon	WWF India	Regional Coordinator, Eastern Himalayas	New Delhi	umenon@wwfindia.net	
143	Mr. Murli Dhar	WWF India	Director, Sustainable Agriculture Programme	New Delhi	mdhar@wwfindia.net	
144	Mr. Philip Tapsall	WWF India	Director, Sustainable Business	New Delhi	ptapsall@wwfindia.net	
145	Mr. Deepak Gulliya	WWF India	Senior Programme Officer, Sustainable Business	New Delhi	dgulliya@wwfindia.net	
146	Ms. Vishaish Uppal	WWF India	Director, Sustainable Livelihoods & Governance	New Delhi	vuppal@wwfindia.net	
147	Mr. Salim Qureshi	WWF India	Programme Officer	New Delhi	squreshi@wwfindia.net	
148	Ms. Sakshi Kakar	WWF India	Programme Officer	New Delhi	skakar@wwfindia.net	
149	Ms. Pankhuri Chaudhary	WWF India	Senior Programme Officer	New Delhi	pchaudhary@wwfindia.net	
150	Ms. Devika Singh	WWF India	Intern	New Delhi	devikasingh@nls.ac.in	
151	Mr. Merwyn Fernandes	WWF India	Coordinator, Traffic	New Delhi	mfernandes@wwfindia.net	
152	Ms. Divya Mehra	WWF India	Programme Officer, PRI	New Delhi	dmehra@wwfindia.net	
153	Dr. K Somasundar	Ministry of Earth Sciences	Adviser/ Scientist 'G'	New Delhi	soma-dod@nic.in	011-24669513
154	Mr. Manish Chauhan	UN Economic & Social Division , MEA	Joint Secretary	New Delhi	jsun@mea.gov.in	011-49018425
155	Ms. Radhika Kaul Batra	UN Resident Coordinator's Office	Chief of Staff	New Delhi	radhika.kaulbatra@one.un.org	9811127474
156	Ms. Aastha Pando	Pratyek	Programme Coordinator	New Delhi	999coordinates999@gmail.com	9990999640
157	Ms Shalini Bhutani	Lawyer	Independent	New Delhi	emailsbhutani@gmail.com	9810433076
158	Ms. Seema Bhatt	Independent Consultant	Consultant	New Delhi	seemabhatt60@gmail.com	9810827212
159	Mr. Mrinal Mathur	Independent	Environment Prof.	New Delhi	mrinal_29@yahoo.co.uk	9650927537
160	Ms. Sonia Patel	Development Alternatives	Deputy Manager	New Delhi	spatel@devalt.org	9971187775
161	Mr. R B Sinha	Department of Agriculture Cooperation & Farmers	Joint Secretary	New Delhi	rb.sinha@nic.in	23382137

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
		Welfare, MOAFW				
162	Mr. Rajesh Gawande	Ministry of External Affairs	Director	New Delhi	dirccmea.gov.in	49018417
163	Dr. V.K. Saraswat	NITI Aayog	Member Secretary	New Delhi	vk.saraswat@gov.in	23096566
164	Mr. James Mathew	MOSPI	Director(SSD)	New Delhi	james.mathew62@nic.in	9968213652
165	Dr. Ravi Shankar Prasad	MoEFCC	Joint Secretary	New Delhi	ravis.prasad@nic.in	24695309
166	Dr. Amita Prasad	MoEFCC	Additional Secretary	New Delhi	asap.moefcc@gov.in	9449047500
167	Dr. T.C.A. Anant	MOSPI	Chief Statistician Of India and Secretary	New Delhi	tca.anant@nic.in	23742150
168	Mr. Yuri Afanasiev	UNDP	UN Resident Coordinator	New Delhi	yuri.afanasiev@one.un.org	46532367
169	Ms. Shelly Oberoi	Aurobindo college	Asst. Prof.	New Delhi	shellyoberoi83@gmail.com	7838273721
170	Dr. Hishmi Jamili Husain	Rio Tinto	Environment Specialist	New Delhi	hishmi.husain@gmail.com / hishmi.husain@riotino.com	9755593238
171	Mr. N R Sahoo	Pollution Control Board, Odisha	Senior Environment Engineer	Odisha	nihar54@rediffmail.com	9861031605
172	Mr. S K Sinha	Forest & Env. Dept., Govt. of Odisha	Director, Environment and Special Secretary	Odisha	shrawanksinha@gmail.com	9437015638
173	Dr. Satnam S Ladhar	Pb. State Council for Science & Technology	Additional Director (Scientist 'F')	Punjab	ssladhar@yahoo.com	9463200886
174	Dr. M P Singh	Dept. of Animal Husbandry	Nodal Officer (projects)+vety. Officer	Punjab	mps1032@rediffmail.com	9417195964
175	Mr. B Rajkumar	Punjab Forest Dept.	Chief Conservator of Forests	Punjab	basantark@gmail.com	9988421399
176	Mr. Krunesh Garg	Punjab Pollution Control Board	Chief Env. Engineer	Punjab	krunesh@yahoo.com	9878950503
177	Mr. Suresh Chandra	Forest Dept., Govt. of Rajasthan	APCCF (Dir)	Rajasthan	schandralko@gmail.com	9413345282
178	Dr. C P Juyal	Fisheries Dept., Rajasthan	Fisheries Development Officer	Rajasthan	juyalcp@yahoo.com	9414406187
179	Dr. G S Bhardwaj	Govt. of Rajasthan	Chief Conservator of Forests, Jodhpur	Rajasthan	gobindsagarbhardwaj@gmail.com	9414067234
180	Mr. P D Rai	Member of Parliament	MP, Lok Sabha	Sikkim	mpsikkim@gmail.com	9013186208

Sl No	NAME	MINISTRY/ORGANISATION	DESIGNATION	STATE	EMAIL ID	PH. NO
181	Mr. B. Kalyan. C, IAS	Telangana Govt.	Director General, Environmental Protection Training & Research Institute	Telengana	dg@eptri.com	9642808080
182	Mr. Prashanth Kumar	Govt. of Telangana	Officer on Special Duty	Telengana	prashanth.ponugoti@gov.in	9868136446
183	Mr. V Vivekanandan	South Indian Federation of Fishermen Societies	Advisor	Thiruvananthapuram	vivek@siffs.org	9677034670
184	Mr. Ramesh Pandey	Dept. of Forests, Govt. of UP	Chief Conservator of Forests	Uttar Pradesh	rameshpandeyifs@gmail.com	9958705413
185	Dr. A A Khan	Env. Dept. of UP	Officer on special duty (Tech)	Uttar Pradesh	anvanvvar@gmail.com	8417048888
186	Dr. Parag Dhakate	Uttarakhand Forest Dept.	Coordinator, Uttarakhand Climate Change Centre	Uttarakhand	paragenetics@gmail.com	9997105767
187	Mr. Naved	Petrochem	Business Development Manager		-	9211171561

Annexure 4 - Questions asked during sessions

Session 2

Vivek Saxena, Govt. of Haryana:
When highways are expanded, forest cover is lost. There should be a policy to ensure that when forests are cut for expanding highways, a certain width of forest cover should be introduced.

Mr. Roshan Jaggi, J&K Forest Department
What is that policy framework by which we could involve the political spectrum in ensuring the existence of political will in achieving goals of sustainable forest development, when the forestry sector is starving for funds?

Ms. Rekha Pai
Despite the fact that nature provides so much, we still haven't understood and recognized this. It will still take time to trickle down and time is running out, so, how do we sensitize the politicians, and more than the politicians, we need to sensitize the people who control the finances. We really have to fight it out and create more awareness to get the right dues that the forestry sector deserves.

Dr. Jagdish Prasad, APCCF, Gujarat
Given the priority and funds allocated to the sectors concerning environment and ecology, it may be easy to formulate policies but how do we achieve implementation?

Dr. Khosla
Environment is so cross cutting that you don't have a budget line just for the environment in many of the budgetary implications. But still, it's not enough. It would be a pity to make environment another sector. We need to identify the environmental issues in each sector and make sure they get strengthened.

Chair: Dr. P. D, Rai, Founding Member, IMI
He said that in Sikkim we are moving towards legislation to implement the SDGs. Legal framework poses some challenges as to whether it is a state subject or a central or concurrent subject. But, nonetheless, we are making an effort in that direction. 30 lakh crores has been estimated by MoEFCC as the total amount of value we attach to our ecosystems, however, Mr. Rai felt that while that's huge, but even that, to him, is less. He mentioned that we need to frame actions in alignment with the kind of implementation for policies which are already there and strengthen those policies. And see if we can use new policies and new tools for doing the necessary tasks. The need of the hour, as far as this is concerned, according to him is long gone. What we now need to do is a repair job, which is absolutely urgent and important.

Session 3

Questions
Ques 1: It is necessary to define the ownership in case of marine and coastal areas in order to frame policy?

Ans: The legal jurisdictions have been defined.

Ques: There should be special act under the umbrella of which ITC 1860, SCST Act etc can be covered thus avoiding the multiplicity of authority.

Ans: There are regulatory clauses which are present for the fishing or extra territorial water law or territorial water law. Now the issues are whether they are at the same level of detail that we have in other issues relevant in society. The law hasn't been involved to that level because the business activity has also not come to that level, and the disputes and all that have not happened.

Ques: Who will take the first cognizance?

Ans: Department of Fisheries, as far as the MFRA's are concerned and the Ministry of Agriculture as far as the extra territorial waters are concerned, and the Ministry of External Affairs. In the case of MFRA also, the rules are evolving and the necessary States are amending their rules and regulations.

Ques 2: None of the state governments are provided with certain basic figures, the fishing potential or fleet strength for sustainable fishing?

Ans 1: I think, leave aside the east coast and west coast, but for each state, the potential fishing fleet which it can have, the optimum fleet, have been worked out by the Central Marine Fisheries Research Institute.

Ans 2: During 1997, the Union Ministry had set up a committee under the Chairmanship of the Joint Secretary Fisheries, and it had membership from all the coast states. And that committee had come out with the guidelines and also the numbers, fixing the fleet size for each category and each coastal state.

Ques: But has it been implemented? Has it been converted into a recommendation? Has it taken the shape of a regulation?

Ans: It was a committee set up by the government with the mandate to fix the fleet size. So the committee did its job, and the recommendations of the committee went to the state governments. Now the fishing fleet is registered by the state governments at each level. It is their duty to implement the fleet size as per the committee's report. None of them did, citing political reasons.

Ques: Wherever you have concurrency, it is the problem of dual control, which does not work unless there is a hierarchy. There is a hierarchy, but in this case, no central government would like to impose that hierarchy.

Ques: From the Ministry of Agriculture, we can only advice the state government, what is suggested by scientists and expert committees on what should be the fleet size and extent or territorial waters. But, unfortunately it has not materialized because so many factors are involved including political will.

Ans: We need to look at the issue in an integrated manner, where in line with the biodiversity requirements, and also keeping the economic development of the coastal regions and jobs and opportunities, we have to put in that kind of framework where these issues will be handled.

Ques: So, if the Sagarmala project allows for the de-siltation of rivers Krishnaeshwari and Godaveshwari mouth heads, it will improve the livelihoods of the fishermen and the aquaculture that is abetting on either side of these creeks. So if there is a provision under Saagarmala, we sincerely request the authority to incorporate the opening of this age old channels that supports thousands of livelihoods and thousands of acres of aquaculture.

Ques: Pollution is impacting fish catch which is forcing the fishermen to go deeper into the sea for sustaining their livelihood

Ans: Many of the subsidies given are bad for our own fishermen. If a section of the fleet from the coast goes deeper using subsidy, it may be replaced by other fleet once the first one goes deeper and that will lead to over fishing. If you have welfare subsidy, everybody in a fishing village, all the males will become fishermen. So, you're forcing a lot of people to become fishermen simply so they can get subsidies. So, the subsidy regime especially in the southern states where we have a high subsidy regime is very problematic.

It is true that no technology used right now is not polluting, however, there are technologies which can make zero pollution but they cost money. The problem is, when you choose, and many of us are a part of this, the bottom line is not pollution free technology, but money, and you are not ready to pay that money for not having pollution. So long as all of us have that kind of a mindset, you will always have this problem, and particularly in coastal states. If there are regulations for only a certain number of ports per sq.km of coastline to be permitted, because every coast has its own implications both on the biodiversity and on pollution, the situation may be under control.

Ques: Fishermen are spreading all over the coast and state and center are not imposing any regulations. 10% conservation is imposed from SDG, UN. When the centre cannot control over the state political situations, then, the UN cannot control either. 10% figure is meaningless then.

Ans: There is the sovereignty of the country involved. The UN is not going to come and monitor us; it is the country to take a decision.

Ques: So if there is no international monitoring, the country can continue to play with itself.

Ans: We can always find pockets of very important biological biodiversity and these pockets can be conserved but it should not impact the livelihood of fishermen.

Ans: In the mainland, we do have such areas, one is Gulf of Munnar, the Olive Ridley nesting areas in Orissa, then the Gulf of Kutch, mangrove areas, which are not protected but a lot of conservation activities are being done over there, Sunderbans is also a protected area.

Ans: There are current conflicts between fishermen and the forest department, fisheries department and the forest department, between fishermen and the fisheries department. Because fisheries as a whole has to be effectively managed for us to be then able to integrate the conservation elements into it. Wildlife Protection Act, by a mere addition of a few words, you have added the aquatic terrain, and it is not really designed for that.

Ans: I can give you a very small example, wherein people volunteering successfully in some of the areas. For example, there are two small villages in Tamil Nadu, Enayam and Kariapatinam. In Enayam they will not allow fishermen to go out and fish lobsters in gillnet, because all juveniles young one, etc will get entangled in it. In Kariapatinam, it is the exporters will go to Enayam to catch it because the catch which is coming there is large and here it is small. So, they themselves impose such restrictions.

That was a massive campaign which has taken place, and education is very important.

Session 4

Dr. Jagdish Prasad, APCCF, Gujarat

In India, multiplicity of disjoint and at times contradictory policies, programmes, plans, missions, which are even multiplying further, will lead to nowhere. We need to know which are the outcomes to be achieved, the measurable outputs, measurable output is to be measured by what activities, and on those activities we should focus. All our programmes and institutions which are related to those activities should focus and converge.

Mr. A K Mangotra (retd.) Govt. of India, working with Renewable Energy

NCF is likely to be wound up has come as a huge set back to the renewable energy world, because the complete budget of the ministry is drawn from NCF. I wonder what is the alternative to this, because all the missions, solar mission etc., will get a huge set back if they run short of funds.

Shri R R Rashmi, Special Secretary, MoEFCC

Flexible ways of finding the budgetary resources to be able to support these programmes, because these are ongoing programmes, NCF is just one of the sources which support these programmes.

Mr. Kalyan Chakravarty, Director General, EPTRI

Each state government has different priorities and perspectives. The INDC's have to get converted to the state level. If, across the country the SOERs are done at the same time, that is, the data on environment, the state action plans are also coordinated. If the State Action Plans and each department wise, objectives are clearly mentioned as to how they are contributing to the INDCs, then, all the states will move in a particular direction. The SAPCs and the recommendations made by the state advisory institution are tabled in the assembly.

Chair

We already have a body headed by the Chief Secretary which prepares the drafts and approves the drafts of the state action plans. But technical advisory bodies can be thought of, and I'm sure the state govt.'s can find the necessary expertise. The department of science and technology, which is implementing the strategic knowledge mission, has thought about it, and they have now got a programme of establishing climate change innovation centres in each state. About 6 states have set up dedicated climate change centres.

It would be important for them to have an advisory role at this stage to be able to nudge the departments towards preparing or mainstreaming the climate change concerns into their existing policies or fresh policies.

Dr. Navroz Dubash

There is the top down kind of approach which has the virtue of clarity. You set targets, achieve these targets and then you measure against it. The difficulty, of course, is that it's very hard to come to consensus on these targets, and when you talk about targets in the context of climate change, target setting is not necessarily consistent with a co-benefits based approach, because in India, we are not doing things for climate reasons primarily, we're doing things because of a larger development imperative of which climate is a part. The first step is to probably take a bottom up approach in India as well, like the international regime has done, by and large, and think about what the points of intersection are with this mainstreaming kind of curve. Things will only happen at the state level if they are driven by state priorities.

Mr. Sreenivasa Murthy, Member Secretary, Madhya Pradesh State Biodiversity Board

Will there be any additionality of funds to achieve these multiple goals by really creating and restoring the forests?

Chair

An ongoing program called the Green India Mission, which is supposed to be focused on reforestation, afforestation and sustainable livelihoods within the forest areas. In the NDC's, as you have noted rightly, the target has acquired a new dimension with regard to carbon stock. There is a measurable carbon stock we have to establish by 2030. So, this is one area where we need to do some constructive and imaginative thinking, whether it would be necessary to involve the states in a target based action. It's possible, if you look at it in terms of actual programmes, to link the actual programmes to specific targets in terms of carbon stock, under the Green India Mission or under the ongoing National Afforestation Programme. Hopefully the Green India Mission and the National Afforestation Programme will be combined together to come up with a new flagship scheme, which will be linked to this carbon stock outcome. The central government has approved a budget of 13,000 crores at the moment, for the Green India Mission, but we have spent just about 1000 crores so far, because we didn't have the required budget. But, the funding remains the central issue. There is a portion of CAMPA which can be utilized constructively to support the objectives of the Green India Mission and creating the carbon stock. The flexibility and discretion to use CAMPA funds lies primarily with the state governments now, the central component is very limited there. Therefore, it is all the more necessary that the state action plans are reworked and reoriented in this direction

Lokendra Thakkar, Madhya Pradesh

Each and every department, because you have national missions here, constitutes its own verticals in the department and hence integration and convergence is going to be lost. The relevance of climate change knowledge centre's or of these advisory bodies is again lost, and they are marginalized.