

## Maximising multiple co-benefits - How do we get there? <sup>1</sup>

IGES (Institute for Global Environmental Strategies), Japan<sup>2</sup>  
In collaboration with TERI (The Energy Resources Institute), India

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### Summary and key messages

- Reducing greenhouse gases (GHGs) and other climate relevant emissions is fundamental to achieving the long-term temperature goal of the Paris Agreement. Enhancing multiple co-benefits aids further acceleration of such efforts.
- In India and Japan, there are many good examples that already show the existence of multiple benefits. Multiple benefits are generated by setting climate policies and implementing measures beyond simply targeting reduction of emissions, and taking actions at the local level.<sup>3</sup> Some key examples are highlighted in this submission:
  - Mainstreaming energy transition towards low/de-carbon backed by a government initiative in India not only lays the foundation to economy-wide actions, but also brings co-benefits to the transportation sector and urban air quality, as well as overcoming challenges to industrial energy efficiency.
  - Tackling aggravating air pollution in India is an urgent issue. The combined air-pollutant and GHG emissions control leads to significant benefits to human and environmental health and agricultural production. In addition, reducing short lived climate pollutants (SLCPs) by promoting alternatives to the traditional practices through regulation and training assists in improving awareness as well as overcoming financial and technical barriers.
  - Community-based renewable power generation in Japan takes the lead in accelerating the transition to renewables, generates markets for products, creating jobs and promoting mutual learning.
- To further maximize these co-benefits, it is vital to improve coordination, communication and information-sharing among stakeholders at the local, regional, and global levels, through the utilization of existing knowledge platforms and networking.

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<sup>2</sup> Contact regarding this submission: Climate and Energy Area (Dr Kentaro Tamura, Dr Eri Ikeda), 2108-11 Kamiyamaguchi, Hayama, Miura-gun, Kanagawa, 240-0115, Japan. Tel: +81-(0)46-826-9592, Email: [ce-info@iges.or.jp](mailto:ce-info@iges.or.jp), [www.iges.or.jp](http://www.iges.or.jp), Twitter: @IGES\_EN

<sup>3</sup> This is a combination of bottom-up (climate actions at local level) and top-down (decision-making at the government and international/global levels) approaches, which is also crafted in the Paris agreement.

Another key to facilitate such actions is to strengthen policy signals and set quantified targets by providing a clear policy direction to non-party stakeholders.

This submission is based on a discussion at the Japan-India Climate Policy Research Workshop funded by the Ministry of the Environment, Japan (MOEJ), and co-organised by IGES and TERI, held on 26 and 27 July 2018 in New Delhi, India. The workshop aimed at answering three key Talanoa questions, with the particular focus on ‘exploring the enabling conditions as well as learning from the experiences in further enhancing multiple co-benefits of climate policies’.<sup>4</sup> The workshop consisted of presentations by governmental and non-governmental participants, and break-out sessions (in three groups), keeping in mind of the open, inclusive, and collective nature of the Talanoa Spirit. We are of the view that sharing and learning from experiences, as also emphasised by the Talanoa approach, is crucial in implementing climate actions, and that this submission aims to highlight the key findings of the workshop to contribute to the global discussion.

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<sup>4</sup> For further information, please see <https://www.iges.or.jp/en/climate-energy/20180726.html>

## **1. Introduction**

Enhancing multiple co-benefits of reducing GHGs and other climate relevant emissions is evidently one of the key vehicles for accelerating our efforts to achieve the long-term temperature goal outlined in the Paris Agreement. However, one question remains as to “how to enhance” such co-benefits, while minimising any (unintended consequences of the) damage caused by climate change mitigation measures and potential disbenefits. To answer this question, especially in the context of the third of Talanoa question of “how do we get there”, IGES and TERI co-organised a local Talanoa event in July, as part of the annual Climate Policy Research Workshop.

In this submission, we share views and take-aways from the workshop towards contributing to the global discussion for raising ambition, especially providing good examples and lessons learnt. This submission consists of two parts. It first presents existing successful models and actions that promote co-benefits and that can possibly be replicated, and second, it discusses some challenges associated with the course of implementing such actions at the general level and how we can overcome these.

## **2. Actions in place and successful examples/models**

During the workshop, discussions evolved around the topics of 1) how to provide enabling conditions for effectively increasing multiple co-benefits, and 2) any successful models and experiences that can be formed/replicated. Among many good examples of initiative and collaboration in generating and enhancing co-benefits that were shared and identified, four key examples at the policy and/or local levels in India and Japan will be showcased here. The first three focus on India’s examples of dealing with such key and urgent policy issues as energy transition and air pollution followed by a leading initiative towards renewables in Japan.

### *Case 1: Mainstreaming Energy Transition in India’s climate policy*

One of the critical steps that define the question of ‘how do we get there’ is the political will to bring about substantial change in policies to address larger climate and environmental goals more effectively.

Recognising this, the Indian Prime Minister’s declaration of having 40% of total energy supply from non-fossil fuel is one of the critical policy steps to mainstream and catalyse energy transition as a public policy initiative. Such energy transition initiatives do in fact offer clear co-benefits to the transportation sector and urban air quality as well as overcoming challenges to industrial energy efficiency. Government-backed initiatives for enhancing energy efficiency in the industrial sector through a market-based mechanism—Perform Achieve and Trade (PAT) scheme—have been contributing to enhancing efficiency. For the transport sector, India has been preparing for an accelerated transition to electric vehicles through policy-based mandates, by promoting a shift from road to rail-based

movement, and by improving efficiency of the land transportation and aviation sector. To accelerate and enable large-scale replication in integrating clean energy, there is also a critical need for adequate and additional capital, requiring reduced risks and transaction costs, which need to be raised through domestic fiscal measures as well as through international support and collaboration.

#### *Case 2: Solving air pollution in India*

India's per capita GHG emissions are rather small on a global scale, but aggravation of domestic air pollution, especially in major cities, has become a serious social and public policy issue. As scenario analysis by TERI<sup>5</sup> highlighted and confirmed, the above-mentioned low-carbon energy transition using policy measures in the domains of energy efficiency improvement, fuel-switching, and promotion of renewables is also key to address air quality improvement (through the reduction of air pollutants such as SLCPs), which also results in long-term co-benefits to human health and agricultural production.

While the above-mentioned energy transition initiatives are under way to implement identified actions in addressing the growing air pollution in Indian cities, three specific approaches are gaining attention. First, **national policies** that directly address pollution issues within the country need stronger implementation mechanisms and adequate legal support. In this regard, more attention should be put on strengthening policy frameworks and establishing adequate punitive measures for non-compliance for polluting sectors or entities. Second, policy formulation and implementation can be strengthened only through **collaborative mechanisms** that involve multiple stakeholders, including national government, sub-national government, city or municipality authorities and civil society and private sectors. Third, **international collaboration and the use of best practices** from other countries adapted to the local context will be key to addressing air pollution. This includes city-to-city collaboration as well as accessing low-carbon energy technologies from energy intensive sectors.

#### *Case 3: Initiatives by international partnerships in tackling air pollution in India*

Across India, international organisations and global partnerships such as the CCAC (Climate and Clean Air Coalition)<sup>6</sup> are supporting a number of mitigation options with benefits for health, climate, economic and agriculture at the local level. CCAC particularly focuses on reducing SLCPs,<sup>7</sup> in efforts to respond to several common challenges such as

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<sup>5</sup> See presentation by Dr Sumit Sharma by TERI. <https://www.iges.or.jp/files/research/climate-energy/PDF/20180726/6.pdf>

<sup>6</sup> The only voluntary multi stakeholder partnership addressing short lived climate pollutants at a global level.

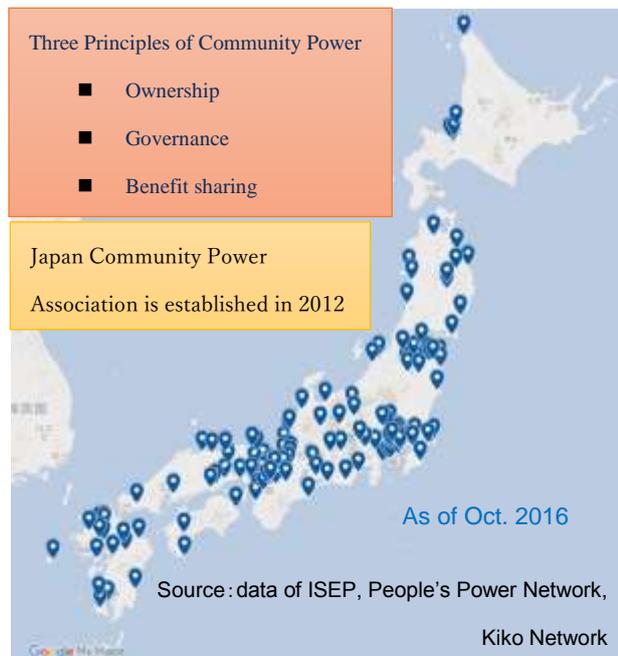
<sup>7</sup> Mitigation of SLCPs (methane, HFC and black carbon) globally to supplement and enhance scaled-up actions on CO<sub>2</sub>, has the potential to avoid 0.6 C of predicted global warming by 2050, thereby making a very significant contribution towards achieving the Paris Agreement temperature goal. Full implementation of SLCP measures by 2030 would avoid 2.4 million annual deaths by 2030; would avoid 52 million tonnes of annual staple crop losses after 2030; and would slow sea-level rise by 20% by 2050.

limited knowledge of the impacts of SLCPs, lack of tools and knowledge about mitigation options, as well as regulatory, financial and technological barriers. Their initiatives include the promotion of agricultural ‘no burn’ alternatives to farmers in areas that are particularly sensitive to the warming effects of black carbon (“Agriculture initiative”); the promotion of a cleaner and more sustainable traditional bricks sector with local development benefits through policies, training and emissions measurements (“Bricks initiative”); the development of sustainable waste management systems and strategies at the city level including technical assistance, training and assessments by bringing together different stakeholders to solve the issue (“Waste initiative”); and the promotion of clean cookstoves through development and implementation of standards, new finance mechanisms, research and policy support.

*Case 4: Community-based renewable energy promotion in Japan*

Across Japan, initiatives to accelerate the transition to renewable energy have been rapidly introduced and expanded, especially at the local level— more so after the Fukushima disaster in 2011 (see Figure 1). Such initiatives typically create a hub of power generation and transmission including the local power generator, dealers, facility manufacturers and customers, and this provides electricity in a secure, sustainable and self-sufficient manner at the community level. For the development of better services and systems, integration of training and knowledge-sharing is vital among the stakeholders and local people as well. In many cases,<sup>8</sup> community-based initiatives have led to a wide range of significant co-benefits especially in the revival of the regional economy, job creation, improvement for social work services including elderly support, and enhanced climate resilience.

**Figure 1: Activities of Community Power in Japan**

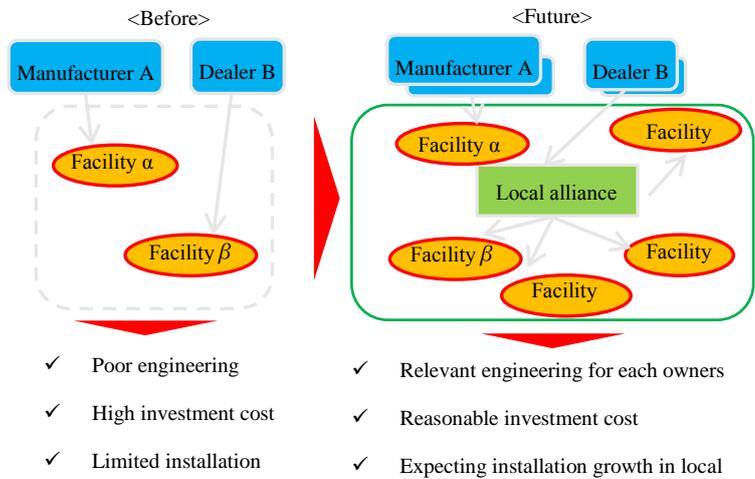


<sup>8</sup> For example, Maniwa, Shimokawa, Iida, Miyama, and Higashi Matsushima.

**Box 1: Example - Local alliance model in biomass sector**

Although woodchip is price competitive against conventional fossil-fuels, major biomass resources are untapped in Japan. The key source of the problem is a lack of shared knowledge and experiences by manufacturers/dealers in the biomass sector, which has resulted in a high initial investment cost for bio boilers and a lack of a sustainable fuel procurement chain. The newly-introduced alliance model is expected to promote community learning to improve facility development and management, as well as to lead the efficient use of biomass resources and facilitate creating a hub for potential customers (see Figure 2).

**Figure 2: Local alliance model**



**3. Identified challenge and suggestions for improvement**

While we have managed to identify positive examples that provide useful insights and lessons, the workshop participants also pointed out that stronger efforts are required to maximise co-benefits. This section presents the main issue raised at the general level and discuss possible ways to make improvements.

The key observed challenge is **how to sustain, scale up, and improve existing and future climate-related projects in a more sustainable and collaborative manner to further generate an overall long-term impact/co-benefits and achieve the climate goals.** There are already a large number of climate change-related projects, and with increasing awareness that climate change presents not just cost but also opportunities and co-benefits, more actors are joining this trend. However, there has been a lack of coordination in the planning and decision-making processes across institutions and organisations. This often makes it difficult to maximise their strengths in delivering expected outcomes, regardless how strong the will is to engage in climate action.

To address this challenge, the following ideas were put forth by participants at the workshop:

- **Strengthening global, regional and local coordination.**
  - The first step is to review what, how and where the projects are implemented. At the global level, one immediate possibility would be promotion of the use of the

existing NAZCA platform,<sup>9</sup> while further work is required to expand on each area of project information as often the details of the project are not available. There is also a need to institutionalise the information and integrate other work/information into the database, such as the collected stories of the Talanoa Dialogue. Another possibility, at the local level, would be for donors or proponents of the project to assign responsibility to implement careful field research or to consult with a clearing organisation before developing a plan for a new project, so as to identify any gaps in existing projects including those carried out by other organisations.

- Networking and local coordination through participating in regional and local initiatives,<sup>10</sup> work by the umbrella organisation and regular conferences could also help in filling the gap, especially for sharing information and building confidence to taking their own actions (see also Box 2).

**Box 2: Example – Role of Associations and global networking**

In renewable energy promotion in Japan, associations such as Japan Wooden Bioenergy Association (JWBA) and Japan Community Power Association (JCPA) play key roles in providing opportunities for networking, mutual learning, matching up business needs, and collaborative research among stakeholders. To share ideas and knowledge globally, JWBA is seeking the possibility to collaborate with the German Association for Bioenergy, and the 2<sup>nd</sup> World Community Power Conference<sup>11</sup> will be held in Mali in November, 2018.

– **Strengthening top-down approach of policy signals (especially incentive mechanisms and setting clear goals).**

- Non-state initiatives including the above-mentioned ones strongly exemplify the bottom-up approach. However, there is a strong need **to increase the predictability in policy direction, create synergies among stakeholders and give comfort for non-state actors to engage fully in the climate actions** (see for an example, Box 3). It is also suggested that policymakers incorporate the outcome of these actions into their policy decision-making processes.

**Box 3: Example – Initiative by government institutions**

MOEJ has endorsed and joined several private-led global initiatives. For example, MOEJ participated in RE100 as the first public entity,<sup>12</sup> demonstrating its commitment to increase the use of renewable-based electricity in government buildings. This signals the shift away from nuclear energy dependency and generates positive expectations for non-Party

<sup>9</sup> NAZCA <http://climateaction.unfccc.int/>

<sup>10</sup> The large scale actions by the non-stake actors include the *Global Climate Action Summit, We Are Still In, Japan Climate Initiative* etc.

<sup>11</sup> See <https://www.conferencecommunity/>

<sup>12</sup> See <http://there100.org/> The Ministry of Foreign Affairs (MOFA), Japan is also seeking to endorse RE100.

stakeholders who are willing to shift to de-carbonisation. The MOEJ also support the private sector in meeting climate targets, such as SBTs (Science Based Targets). MOEJ gives economic incentives by providing consultations and facilitating information-sharing, and this has resulted in a drastic increase in the number of companies that commit to the SBTs (making Japan one of the top countries<sup>13</sup>).



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<sup>13</sup> See <https://sciencebasedtargets.org/approved-targets-map/>