

Advancing climate-resilient low emission development around the world

### WHAT NATIONAL GOVERNMENTS CAN DO TO ACCELERATE SUBNATIONAL ACTION ON CLIMATE

SYNTHESIS OF CURRENT RESEARCH AND GOOD PRACTICE JUNE 2014

Huge opportunities exist to mitigate climate change at the city and subnational level but a range of barriers prevent these opportunities from being fully realised. To address these barriers and fully unlock the opportunities requires acknowledgement of the distinct dynamics which operate at national and subnational levels, and how the interactions between them can help or hinder mitigation action. Rather than simply implementing stand-alone local actions or down-scaling national strategies, a range of effective solutions now exist to accelerate mitigation via integrated national and subnational action.

We highlight here some of the key opportunities, barriers and solutions, and encourage national governments to consider how, through implementing more integrated approaches, they could better engage and support their cities and subnational government counterparts to unlock and accelerate mitigation actions, and strengthen both national and international commitments. Although we focus here on mitigation action, many of these opportunities, barriers and solutions are common for both climate change resilience and mitigation.

### 1. HUGE MITIGATION OPPORTUNITIES EXIST AT CITY AND SUBNATIONAL LEVEL

Huge opportunities exist for mitigating climate change through actions delivered at city and subnational level. City and subnational governments (SNGs) not only play an important role in implementing national government action, they also control policy levers and exert influence less available to national governments, making them key actors in mitigation action.

With a fast growing global population, increasingly living in urban areas **cities are key leverage points for mitigation action.** Current estimates suggest that urban areas account for between 67–76% of energy use and 71–76% of energy-related CO<sub>2</sub> emissions and **up to half (37-49%) of global greenhouse-gas emissions** (IPCC, 2014a). A wide range of urban-scale technologies and practices are now available to reduce emissions (e.g. Erickson, et al. 2013; UN-Habitat, 2013)

and the largest mitigation opportunities are likely to be in rapidly urbanising areas where urban form and infrastructure are not yet locked-in (IPCC, 2014a).

## Cities and SNGs are key actors in national mitigation action

National governments often **depend on cities and SNGs to deliver mitigation action** through directly implementing policies (GIZ, 2013; Anton, B. et al., 2014). **SNGs can strengthen and reinforce national policies to help reach higher ambitions** (World Bank, 2013) for example, through addressing market failures not dealt with by national policy or increasing policy stringency in subnational delivery (IPCC, 2014b); **SNGs are often best placed to identify local needs and benefits and to exploit synergies** across investment priorities (Allain-Dupré, 2011) through mobilising local resources and coordinating between individuals, institutions and sectors that are crucial to mitigation action (Anton, B. et al., 2014). **SNGs have greater opportunities for policy innovation** in developing tailored solutions and identifying policy complementarities (GGBP, 2014), for example through local piloting and experimentation (IPCC, 2014b).

# Cities and SNGs have influence that can be leveraged to enable mitigation action

SNGs can influence spending and investment: On average, around 75% of all government capital expenditure on environmental protection is made by SNGs giving them considerable scope to influence mitigation through investments in transport, building, water and waste (Merk et al., 2012); Public spending and procurement controlled by SNGs can be aligned with environmental goals and foster markets for green goods and services through influencing criteria for investments, subsidies, loans, tax breaks, procurement and public-private partnerships (OECD, 2013); Taxes and fees can be used by SNGs to influence individuals' behaviour regarding transport, land-use, housing, waste, water and energy decisions. Property taxes, for example, can be redesigned to encourage more resource efficient development (OECD, 2013). SNGs can influence policy, planning and regulation: for example through SNG control of policy and regulatory levers that exert substantial effects on emissions, including: land use planning, building codes, waste management, traffic infrastructure, management and public transport (IPCC, 2014b; Blok et al., 2012; UNEP, 2012). SNGs discretion over decisions regarding spatial development patterns and transportation infrastructure can dramatically affect the greenhouse-gas footprints of urban residents (Erickson et al., 2013) and; SNGs play an important role by incorporating mitigation into urban planning (IPCCC, 2014b) through for example, influencing decisions over infrastructure renewal and expansion (Corfee-Morlot et al., 2012) or introducing ambitious building codes (UNEP, 2012).

#### SNGs can influence awareness, behaviour and

collaboration: For example, through consumer education programmes, eco-standards, eco-labelling and best-practice demonstration sites SNGs can raise public awareness, change consumption habits and increase market penetration for green goods and services (OECD, 2013). In addition, cities and SNG's are often effective at bringing stakeholders together and building relationships and trust through collaborative effort at the local level (UN Habitat, 2012).

### 2. VARIOUS **BARRIERS** PREVENT SUBNATIONAL MITIGATION OPPORTUNITIES BEING FULLY REALISED

#### **Financial barriers**

Insufficient public budgets due to unstable or weak revenues (Allain-Dupré, 2011), chronic and long-term underinvestment (Anton, B. et al., 2014) or threats to SNG budgets or income from mitigation action (GIZ, 2013); Lack of access to affordable finance (international finance in particular) and high investment costs (Anton, B. et al., 2014; GGBP, 2014; GIZ, 2013; UNEP, 2013; Clapp et al., 2010) often due to real or perceived market risk (Gouldson et al., 2012) and; Difficulty mobilising private funding without the backing of national government (Corfee-Morlot et al., 2012) particularly for mediumto-small SNGs (Anton, B. et al., 2014).

#### Political and institutional barriers

Recent surveys suggest that around two thirds of governments across all regions lack effective mechanisms for coordinating environmental sustainability actions between national and SNG (UN-Habitat, 2013). This may be due to a range of political and institutional barriers including: **SNGs lacking a formal**  **mandate** to deal with climate protection and energy issues (ICLEI, 2014); **Lack of political incentives for SNGs** due to misalignment between national and sub-national priorities, negative impacts for certain stakeholders or barriers caused by vested interests or institutional bias preventing support (GIZ, 2013); **Institutional weaknesses** such as lack of effective coordinating mechanisms or institutional congestion causing duplication and fragmentation of resources (GIZ, 2013), weak governance structures (UNEP, 2013) or institutional capacity constraints (IPCC, 2014b) and; **Institutional differences** in culture, priorities or political ideology between national and SNGs (GIZ, 2013) and national policy sometimes undermining or impairing SNG action (GGBP, 2014; OECD, 2012).

#### Information and knowledge barriers

Knowledge and information gaps between national and SNGs prevent effective communication and coordination of mitigation action (GGBP, 2014; Anton, B. et al., 2014); Lack of SNG level data and information to inform mitigation action, either because it is not collected or not organised or shared appropriately (GIZ, 2013). In particular, the lack of emissions data at a local level is a common barrier as is the lack of consistency and comparability in SNG emissions accounting methods (IPCC, 2014a).

#### Capacity and skills barriers

Around two thirds of cities **lack financial and institutional capacity** to implement environmental sustainability programmes (UN-Habitat, 2013). This is a major barrier for mitigation action, particularly given the scale and pace of urbanisation in many developing countries (Anton, B. et al., 2014). A major institutional capacity challenge is the **lack of skilled staff and technical expertise** to incorporate mitigation into SNG planning and implementation (Stiftung Mercator, 2014; Clapp et al., 2010; Allain-Dupré, 2011) particularly in developing countries (IPCC, 2014b).

### **3.** MANY **SOLUTIONS** EXIST FOR NATIONAL GOVERNMENT TO REMOVE THESE BARRIERS AND ACCELERATE SUBNATIONAL ACTION ON CLIMATE

A range of effective solutions exist that national governments can employ to remove the barriers faced by SNGs in implementing mitigation action. We present here a brief overview of a selection of approaches that have been recently highlighted by researchers and practitioners as international good practice.

## National governments can **unlock financial barriers** by:

- Direct subsidy or funding for SNG mitigation action: Germany's National Climate Initiative Fund subsidises 50–65% of technical project costs in over 1,700 cities (GIZ, 2013). India's national program on urban development and renewal (JnNURM) provides co-financing for cities to improve efficiency in urban infrastructure and service delivery (GGBP, 2014).
- Establishing dedicated funding entities: Rwanda's FONEWRA Environment and Climate Change Fund channels domestic and international finance to SNGs (GGBP, 2014); the UK's Green Investment Bank provides low, fixed rate loans to SNGs for implementing renewable energy and energy efficiency measures such as the conversion of 70,000 streetlights to low energy in the City of Glasgow (GIB, 2014).
- Working through existing finance entities: Peru's state owned development bank COFIDE has mobilised international and private sector finance to support innovative low carbon transportation initiatives at the municipal level (Paredes, 2012); Thailand's *Energy Efficiency Revolving Fund* extended credit lines to thirteen local public and commercial banks to supply low-interest loans for energy efficiency (GIZ, 2013).

# National governments **can remove political and institutional barriers** by:

- Providing clear mandates and ownership to SNGs: France's *Regional Climate-Air-Energy Plans (SRCAE)* provide a clear process for national and SNG to work together with clear ownership assigned to SNG for particular elements, e.g. emission inventory and scenario methodologies (GGBP, 2014) the UK's *City deals*, made between national and city government are being effectively used to develop and deliver low carbon development (GIZ, 2013).
- Improve integration and coordination: Vietnam's National Green Growth Strategy requires SNGs to formulate specific action plans with at least two targeted indicators and integrate them into their local five-year and annual socio-economic development plans (LEDS-GP, 2014); Morocco's Jiha Tinou program aims to increase renewable energy and energy efficiency through coordinated action between national government and SNGs to mainstream energy into territorial and urban planning, facilitate between SNGs and international partners and establish targets and roadmaps for local energy planning (GGBP, 2014); the USA's National Climate Task Force chaired by the White House and supported by an executive order of the President brings together Federal, state, local and tribal leaders, providing funding and technical assistance to SNGs (USG, 2013).

## National governments can address information and knowledge barriers by:

• Improving access to data and information: In the UK, the *Homes Energy Efficiency Database* gathers multiple data sets on housing conditions from different sources and combines them into an accessible national level database for SNGs to access strategic data to guide their energy efficiency planning, while also providing an overview for national government strategy (GIZ, 2013).

# National governments can address **capacity and skills barriers** by:

- **Providing technical skills and knowledge support:** in Brazil the national development bank and eight financial groups established the *Estruturadora Brasileira de Projetos* (*EBP*) to provide capacity support to SNGs in undertaking the complex technical and financial processes necessary for effective urban renewal, infrastructure projects and public private partnerships (ISC, 2013).
- Supporting skills and knowledge development: In Bangladesh, a national training centre was developed to support SNG staff to develop capacity and implement SN waste management programmes which create new revenue streams and savings to SNGs (GIZ, 2013).

The Low Emissions Development Strategies Global Partnership (LEDS-GP) was founded in 2011 to enhance coordination, information exchange, and cooperation among countries and international programmes working to advance low emission climate resilient growth. The partnership brings together leaders and practitioners from more than 120 countries and international institutions through innovative peer learning and collaboration forums and networks. www.ledsgp.org

The LEDS-GP **Working Group on Subnational Integration** was launched in 2013 in response to LEDS-GP member consensus on the need and value of improved integration of climate action plans and policies between national and subnational levels. The group supports and brings together key partners to facilitate priority activities that aim to make the case and identify tools for vertical collaboration between national and subnational actors and cross-learning between subnational actors. www.ledsgp.org/planning/NationalSubnationalLEDS

Prepared by the Low Emissions Development (LEDS) Global Partnership Working Group on Sub-National Integration. For further information, please contact: Nicholas Harrison, Ecofys (n.harrison@ecofys.com) or Scott Muller (s.muller@mac.com).

### REFERENCES

- Allain-Dupré, D., (2011). Multi-level Governance of Public Investment: Lessons from the Crisis. OECD Regional Development Working Papers 2011/05. Organisation for Economic Cooperation and Development (OECD).
- Anton, B., Cambray, A., Dupar, M., Westerlind-Wigstroem, A. and Gogoi, E. (2014). Close to home: subnational strategies for climate compatible development. CDKN Working Paper. Climate and Development Knowledge Network (CDKN).
- Blok, K., Höhne, N., van der Leun, K. and Harrison, N. (2012). Bridging the greenhouse-gas emissions gap. Nature Climate Change 2:471–474.
- Clapp, C., Leseur, A., Sartor, O., Briner, G. and Corfee-Morlot, J. (2010). Cities and Carbon Market Finance: Taking stock of cities' experience with clean development mechanism (CDM) and joint implementation (JI). OECD Environment Working Papers No. 29. Organisation for Economic Cooperation and Development (OECD).
- Corfee-Morlot, J., Marchal, V., Kauffmann, C., Kennedy, C., Stewart, F., Kaminker, C., Ang, G. (2012). Towards a Green Investment Policy Framework: The case of low-carbon, climate resilient Infrastructure. OECD Environment Working Papers No. 48. Organisation for Economic Cooperation and Development (OECD).
- Erickson, P., Lazarus, M., Chandler, C. and Schultz, S. (2013). Technologies, policies and measures for GHG abatement at the urban scale. Greenhouse gas measurement and Management 3 (1-02):37–54.
- GGBP. (2014, forthcoming). Green Growth in Practice: Lessons from Country Experiences. Green Growth Best Practice (GGBP).
- GIB. (2014). UK Green Investment Bank launches new loan product to finance the UK's switch to low energy streetlighting. Green Investment Bank. Available from: http://www.greeninvestmentbank.com/media-centre/gib-news/uk-green-investment-bank-launches-new-loan-product-to-finance-the-uk-s-switch-to.html. Accessed 03.06.14.
- Gouldson, A., Kerr, N., Topic, C., Dawkins, E., Kuylenstierna, J., Perce, R. (2012). The Economics of Low Carbon Cities: A Mini-Stern Review for the Leeds City Region. Centre for Low Carbon Futures.
- GIZ. (2013). Sub-national involvement in NAMA development: Current and emerging practice towards vertical integration.
- ICLEI. (2014). LG Action Final Report: Results and highlights of the 'Networking action to involve Local Governments in the EU and international energy and climate debate' project. Local Governments for Sustainability European Secretariat (ICLEI Europe).
- IPCC. (2014a). Chapter 12: Human Settlements, Infrastructure and Spatial Planning. Working Group III. IPCC 5th assessment report. Intergovernmental Panel on Climate Change (IPCC).
- IPCC. (2014b). Chapter 15: National and Sub-national Policies and Institutions. Working Group III. IPCC 5th assessment report. Intergovernmental Panel on Climate Change (IPCC).
- ISC. (2013). Financing Urban Growth in Brazil. ISC Case Study. Institute for Sustainable Communities (ISC).
- LEDS-GP. (2014, forthcoming). Subnational Integration of the Vietnam Green Growth Strategy: LEDS-GP Case study. Low Emissions Development Partnership (LEDS-GP).
- Merk, O., Saussier, S., Staropoli, C., Slack, E., and Kim, J-H (2012). Financing Green Urban Infrastructure. OECD Regional Development Working Papers 2012/10. Organisation for Economic Cooperation and Development (OECD).
- OECD. (2012). Green Growth and Developing countries: A Summary for Policy Makers. Organisation for Economic Cooperation and Development (OECD).
- OECD. (2013). OECD Green Growth Studies: Green Growth in Cities. Organisation for Economic Cooperation and Development (OECD).
  Paredes, C-A., (2013) COFIDE: Development of innovative financial instruments: the sustainable transportation promotion program. Gerencia de
- Financiamiento de Infraestructura, Corporativo y Medio Ambiente.
  Stiftung Mercator. (2014). For a Low Carbon Urban Development. Sino-German Pilot Studies: For a Low Carbon Urban Development the City of Wuxi and the Düsseldorf+ Region.
- UN-Habitat. (2012) UN System Task Team on the Post-2015 UN Development Agenda: Sustainable Urbanization. Thematic Think Piece. United Nations Settlements Programme (UN Habitat).
- UN-Habitat. (2013). Addressing urban issues in national climate change policies: Cities and climate change initiative. Policy Note No. 3. United Nations Human Settlements Programme (UN Habitat).
- UNDP (2011). 2011 Update. Down to earth: Territorial Approach to Climate Change: Low-Emission and Climate-Resilient Development Strategies at the Sub-national Level. United Nations Development Programme (UNDP).
- UNEP. (2012). The Emissions Gap Report 2012: A UNEP Synthesis Report. United Nations Environment Programme (UNEP).
- UNEP. (2013). The Emissions Gap Report 2013: A UNEP Synthesis Report. United Nations Environment Programme (UNEP).
- USG. (2013). Factsheet: Executive Order on Climate Preparedness. United States Government (USG). Available from: http://www.whitehouse.gov/ the-press-office/2013/11/01/fact-sheet-executive-order-climate-preparedness Accessed: 03.06.14.
- World Bank. (2014). Mapping Carbon Pricing Initiatives. Developments and Prospects.

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prepared by

www.ecofys.com



For further information, please contact: Nicholas Harrison, Ecofys (n.harrison@ecofys.com) or Scott Muller (s.muller@mac.com).