

IGES Discussion Paper

# Integration of climate actions and SDGs at the sub-national scale:

## Results from stakeholder consultation in West Java



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# **Integration of climate actions and SDGs at the sub-national scale: Results from stakeholder consultation in West Java**

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November 2021

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November 2021

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## Summary

The Paris Agreement and the Sustainable Development Goals (SDGs), both adopted in 2015, are two closely linked policy processes that will require committed efforts in all three dimensions, economic, social and environmental, to ensure successful implementation. While these two agreements are global commitments, their implementation has to be handled at the local level, since many of the policy-related competencies in the areas of water, housing, infrastructure, land use or climate change are often within the ambit of cities and regions. Many local and subnational authorities are taking proactive measures for the SDGs in the form of developing Voluntary Local Reviews (VLRs), and much local planning has taken place in the fields of climate action and environmental protection. Carrying out actions at the local level requires a clear understanding of local contexts – including local opportunities, challenges and priorities, and such actions must also be in line with local development plans and policies as well as take into account linkages between climate actions and the SDGs. To identify the key challenges, understand the synergies and trade-offs among policy measures and jointly search for solutions requires the involvement of all stakeholders; however, it is currently unclear whether policymakers and other stakeholders fully appreciate or are aware of the significant potential, as asserted in this Discussion Paper, of integrating climate action and the SDGs at the local/regional level or whether adequate institutional arrangements and other means needed to capitalise on such potential exist. Studies on this question, in particular reflecting stakeholders' views through surveys and consultations have been limited. This study therefore aims to fill this gap by developing a case study at the provincial level in Indonesia, a country advancing rapidly on the climate and SDG agenda with pronounced commitments and implementation plans stipulated in its Nationally Determined Contribution (NDC) and VNR reports as well as other policy developments.

The authors of this Discussion Paper have engaged with local stakeholders in Indonesia's West Java province to develop a study on integrating climate actions and the SDGs at the local scale. The stakeholder consultation was conducted through an online questionnaire survey of more than 100 stakeholders, followed by an online focused group discussion (FGD) among more than 20 members, who also participated in the online questionnaire survey. The stakeholder consultation aimed to identify the key challenges, synergies and trade-offs between climate actions and the SDGs. This paper introduces the stakeholder consultation activity conducted in West Java, summarises the results and discusses stakeholder perceptions on the interlinkages between climate actions and the SDGs in the local context.

Some of the key issues highlighted by the stakeholders are as below:

- While national policy processes provide an overall framework for these two agendas, West Java has its own challenges and immediate priorities that need to be reflected in local climate change and SDG policies and plans. West Java itself is a focus of economic activity and major contributor to Indonesia's economy, though depends heavily on the informal sector. The region is characterised by widespread poverty, inadequate infrastructure, ongoing environmental degradation and vulnerability to climate-induced disasters, issues that are directly connected with climate change and the SDGs. Addressing them will require integrating policies aimed at reducing poverty, increasing the resilience of the poor, and enhancing the protection of informal small and medium-sized enterprises (SMEs), to help sustain small businesses in the aftermath of a disaster. Similar policies should feature in related climate and SDG policies and plans.

- West Java's major challenges and issues span the three dimensions of sustainability: *economic* (widening income inequality, lack of job opportunities, and many informal sectors), *social* (high poverty, unequal access to public services, including education, gender inequality) and *environmental* (high pollution, industrial wastes, high exploitation of natural resources, lack of clean water and rapid land-use change from agriculture to built-up land for industrial and residential development). Left unattended, these issues can have serious implications for climate actions and the SDGs. Widespread poverty (SDG 1) in West Java, for instance, leads to overdependence on nature for livelihoods, making it difficult to implement appropriate policies to tackle climate risks (SDG 13) and environmental degradation (SDG 6, 7, 12, 13, 14, 15). On the other hand, adverse effects of climate change can affect the region's agriculture sector due to longer dry seasons and water supply issues (SDG 6), which can result in famine (SDG 2) combined with health (SDG 3) and sanitation (SDG 6) problems.
- While climate change and environmental degradation-related risks pose major threats to the long-term sustainability and resilience of the region, awareness of such is relatively low among the populace. Limited access to education deepens human resources scarcity, unemployment and socio-economic inequality, limits environmental awareness and coupled with the difficulty in securing livelihoods leads to overexploitation of the region's natural resources, which aggravates environmental degradation. Pollution, overexploitation of natural resources and other environmental disasters increase the region's climate change vulnerabilities. While West Java has already initiated several environmental and climate-related measures, raising awareness of these issues among the populace will be equally important to implementing climate actions and SDGs.
- Inadequate governance and institutional infrastructure are major issues requiring urgent attention, and fixing them is necessary to provide a governance mechanism to enable policies and plans to be carried out. One such issue is policy coherence. Governmental agencies often work in silos, which ignores how the economic, social and environmental sectors affect each other. Appropriate institutional arrangements and coherent delegation of responsibilities as called for in an integrated approach, therefore, are necessary to successfully implement climate actions and the SDGs. It is also important to ensure localisation processes are carried out in harmony with national processes, to ensure their efficacy.

The results of the stakeholder engagement activity presented in this paper indicate that the overlapping nature of sustainable development and climate actions necessitates policymakers to integrate and co-develop their implementation plans while taking into consideration the interlinked aspects on the one hand and the local context and priorities on the other. Gaining an understanding of these interactions therefore represents the precondition to enabling SDGs and climate actions to be integrated into development plans. The results of the stakeholder consultation can help shape the design of this integrated approach, which also needs to incorporate the socio-economic and biophysical characteristics of, as well as priorities and challenges facing the region within the broader national development plans. Accomplishing an integrated approach will help bridge the gap between national and local policy processes. It is equally important to provide sufficient support for localising the SDGs and climate actions, in terms of enabling conditions, especially through strengthened governance and institutional arrangements and clarified budget lines, both of which were stressed by the stakeholders. In addition, empowering civil society will boost accountability

for spending and policy decisions on climate and the SDGs.

The knowledge gained through this exercise will also be essential for science-based studies, such as in in-depth SDG interlinkage analyses, which can provide important insights and support for local policy processes including the development of Voluntary Local Reviews. Further, the experience gained from this stakeholder engagement activity is expected to feed into similar activities other regions, cities and provinces within and beyond Indonesia.

**Acknowledgements:**

This publication was produced under the research activities of the “Development, operation and maintenance of the platform for creating zero-carbon cities in FY2020” project, funded by the Ministry of the Environment of Japan (MOEJ) and IGES Strategic Research Fund project on SDG Interlinkages. The authors would like to thank Eric Zusman and Junichi Fujino of IGES and Fritz Akhmad Nuzir of Universitas Bandar Lampung (UBL) SDGs Center for their valuable comments. Masato Aoki of IGES developed the cover design.

The views expressed in this paper are the authors’ own and should not be attributed to the MOEJ, IGES or any other organisations.

# Integration of climate actions and SDGs at the sub-national scale: Results from stakeholder consultation in West Java

## 1. Background

The 2030 Agenda for Sustainable Development and the Paris Agreement offer an unprecedented opportunity to transform the world for a sustainable future. While the 17 Sustainable Development Goals (SDGs) under the 2030 Agenda provide a broad scope encompassing virtually all aspects of development, the Paris Agreement focuses on keeping the global temperature rise below 2° Celsius, with a call for further efforts to hold the temperature rise below 1.5° Celsius and achieve net-zero emissions by 2050 (IPCC, 2018). Despite the differences in processes of these two policies, addressing climate change and achieving the SDGs will both require committed efforts in economic, social and environmental dimensions. Adapting to climate change is an integral part of the SDGs; the 2030 Agenda is directly linked with climate change and includes one goal (SDG 13) on climate action. Actions taken under other goals can also reinforce actions to combat climate change; for instance, promoting clean, sustainable energy (SDG 7), building a sustainable and resilient food production system (SDG 2), developing a sustainable urban transport system (SDG 11), increasing resource use efficiency and reducing waste generation (SDG 12) and curbing deforestation (SDG 15) all contribute to mitigating climate change. Concomitant with the above, however, are potential trade-offs, such as employment disruptions and job losses (SDG 8) resulting from phasing out fossil fuels (SDG 7) (Piggot *et al.*, 2019; Kawakami, Kuriyama and Arino, 2020). The fact that these two global agendas are so inextricably linked makes it essential to integrate climate actions with the SDGs as part of any planning and implementation process, to ensure efficiency, effectiveness and coherence (UNFCCC, 2017).

The enormous challenges facing the transformation to low carbon, climate-resilience and economic and social sustainability imply the need for subnational-level authorities to be directly involved with national governments in implementing the SDGs and the Paris Agreement. Integration of climate actions and SDGs at the local scale is particularly important, since in most countries many of the policy-related competencies in the areas of water, housing, infrastructure, land use or climate change come within the ambit of the cities and regions within countries. Indeed, while both the SDGs and the Paris Agreement are global commitments, their implementation has to be handled at the local level, which underscores the crucial role of local and regional governments (Steiner, 2017). A report from the European Commission stressed that effective implementation of the SDGs requires adopting a bottom-up approach involving multiple levels of administration and stakeholders (Hidalgo Simón, 2021). The critical role of local and subnational authorities in implementing the SDGs is reflected by the proactiveness of many such entities developing their Voluntary Local Reviews (VLRs) (UNECE, no date; Ortiz-Moya *et al.*, 2021). The Japanese cities Shimokawa and Toyama, for example, have developed VLRs with the intention of addressing local challenges and solutions, for which these cities intend to, among others, directly involve local stakeholders, adopt an integrated approach to the SDGs, and provide a business model for economic revitalisation (Town of Shimokawa and IGES, 2018; Toyama City and IGES, 2018). This proactiveness of local governments indicates that they ‘represent an

important site for the governance of global environmental issues' (Betsill and Bulkeley, 2006). These local and subnational authorities, particularly cities, are also at the frontline in responding to the ongoing global COVID-19 pandemic (UNDP, 2020). In fact, in a rapidly urbanising world, cities are the focus of change and the venue where policies are realised (UN-Habitat, no date). Issues such as sustainable development and climate change thus present challenges and opportunities for multilevel governance and polity experimentation (Rabe, 2007). However, it is also important to keep in mind that integrating sustainable development and climate change represent only one of the many issues and challenges local authorities face among fiscal and other policy-oriented constraints (Rosenzweig *et al.*, 2011).

The 2030 Agenda charts out a holistic approach to attaining sustainable development, suggesting that the SDGs are linked with each other at the goal and target levels and that their implementation requires an integrated approach. Targets under SDG Goal 13 on climate actions, for example, are closely linked with those under SDG Goal 7 on energy (as well as many other targets). For effective SDG planning and implementation (including climate actions) towards achievement, it is therefore important to understand how the SDGs interact with each other, where the synergies and trade-offs are, i.e., the interlinkages, and how to take a balanced and integrated approach. For example, understanding the synergies between building climate resilience (Target 13.1) and sustainable food production system (2.4) can help channel climate adaptation funds to invest in sustainable agriculture, such as altering the timing or location of cropping activities, diversifying incomes by integrating livestock with crop production systems, improving soil quality and implementing efficient irrigation practices. To help better understand and analyse SDG interlinkages and the synergies/trade-offs, the Institute for Global Environmental Strategies (IGES) developed a tool ([IGES SDG Interlinkages Analysis & Visualisation Tool](#)) (Zhou and Moinuddin, 2017; Zhou, Moinuddin and Li, 2021)<sup>1</sup>. However, these intrinsic links and features are highly dependent on context and vary not only across countries but also regions within countries, therefore to carry out a more useful study of SDG interlinkages, local stakeholders should be approached as they can provide key insights into local contexts.

While the potential to integrate climate and SDGs at the local or subnational level is evident, little research has been done in this area, particularly that which embraces the perspectives of relevant local stakeholders. Against this backdrop, IGES initiated a study to fill this gap for the West Java province in Indonesia, a country advancing rapidly on the climate and SDG agenda, with pronounced commitments and implementation plans stipulated in its Nationally Determined Contribution (NDC) and Voluntary National Review (VNR) reports (BAPPENAS, 2021; Directorate General of Climate Change of Indonesia, 2021) as well as other policy developments. The study, which focused on engaging with local stakeholders to develop a case study in West Java aimed at integrating climate actions and SDGs at the local scale, made use of a stakeholder consultation, which was conducted through an online questionnaire survey involving over 100 stakeholders, followed by an online focused group discussion (FGD) involving over 20 of the survey respondents. The stakeholder consultation aimed at eliciting the key challenges, synergies and trade-offs between climate actions and the SDGs, and involved IGES partnering with the Center for Sustainable Development Goals

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<sup>1</sup> The IGES SDG Interlinkages Analysis Tool helps identify the relations between relevant SDG targets and quantify these causal relations with trackable SDG indicators based on the correlation of time-series data for the indicators. Using the Network Analysis technique, the structure of the interlinkages network can be analysed from a systemic perspective. The tool can be accessed online from here: <https://sdginterlinkages.iges.jp/>.

Studies (SDGs Center) at the University of Padjadjaran (UNPAD).

This paper introduces the stakeholder consultation activity conducted in West Java, summarises the results and discusses the stakeholder perceptions on the interlinkages of climate actions and SDGs in the local context. The results from this paper can be used in analyses of the synergies and trade-offs between climate actions and the SDGs for West Java.

## 2. Case Study Area

As a very diverse country with a large population and regional variation, Indonesia poses a practical example of why subnational-level SDG planning is important in parallel with national plans. Population-wise the fourth largest country in the world, Indonesia has 34 provinces, over 500 districts or cities and more than 17,000 islands. A 2018 study by the Center for Sustainable Development Goals Studies (SDGs Center) at the University of Padjadjaran (UNPAD) looked at the readiness of Indonesia's provinces for implementing the SDGs (Yusuf *et al.*, 2018), and found that hardly any region or province was adequately prepared to embark on implementing them. Furthermore, each of the provinces, the study argued, tends to have its own challenges, suggesting specific policies are needed to address the needs of each province in implementing the SDGs. Some governmental initiatives at the local level (along with national ones) are already taking shape. The National SDGs Secretariat, based within the Ministry of Planning (BAPPENAS), has already developed a National SDGs Roadmap for the country and is also supervising the development of provincial SDG action plans (Widyasanti, 2019). Indonesia's growth and development rely quite heavily on the country's abundant natural resources, a trend that poses great risks to its long-term environmental and economic sustainability (Alisjahbana and Yusuf, 2004; Mutiara *et al.*, 2021). The government, cognizant that the country's vital sectors such as water, food, health and energy, are vulnerable to the adverse effects of climate change, also intends to develop a robust, long-term strategy to mitigate climate change. Along with national climate action plans, some provinces have also taken their own initiatives to counter climate change, though such initiatives are not long-term strategies.

Recognising the above challenges, IGES and the SDGs Center at UNPAD developed a study plan to look into integrating climate actions and SDGs at the local scale from an interlinkages perspective. For this study, West Java Province in Indonesia was selected as the study area (see Box 1). This province is the most populous in Indonesia and a major economic centre; however, it also faces critical economic, social and environmental issues, which if left unaddressed will undermine its SDG implementation. To understand local stakeholder perspectives on localising the SDGs and climate actions in West Java, the challenges faced and the opportunities to overcome them from an SDG interlinkages perspective, the IGES-SDGs Center collaboration conducted a stakeholder consultation exercise, outlined above.

### Box 1. West Java



**Figure 1.** Provincial map of Indonesia (the red circle shows West Java)

Located in the western part of the Indonesian island of Java, West Java is the most populated (approximately 49.3 million in 2019) of the 34 provinces. Bandung, the provincial capital, is situated in the mountainous area in the centre. Historically an important region, West Java was among the eight Indonesian provinces formed soon after the country declared independence. While initially the region was predominantly dependent on agriculture, its economic structure changed over time, and it currently constitutes a major economic concentration with significant contribution to the national economy. However, several challenging issues have marred the region's growth and development. These include unemployment, widening income and social inequalities, and environmental degradation (Yusuf *et al.*, 2018).

### 3. Status quo of SDGs and climate change planning and implementation in West Java

The implementation of SDGs in West Java Province is mainly driven by the government's planning agenda (especially the Long- and Middle-Term Regional Development Plan, RPJMN and RPJMD) (BAPPENAS, 2018; Government of Indonesia, 2019). The revised RPJMD has incorporated the SDGs through an initiative on SDGs Strategic Environment Assessment (Kajian Lingkungan Hidup Strategis or KLHS) that accommodates five SDGs (Goal 11 on sustainable cities, Goal 12 on responsible consumption and production, Goal 13 on climate action, Goal 14 on life below water and goal 15 on life on land) as development priorities (Government of Indonesia, no date).

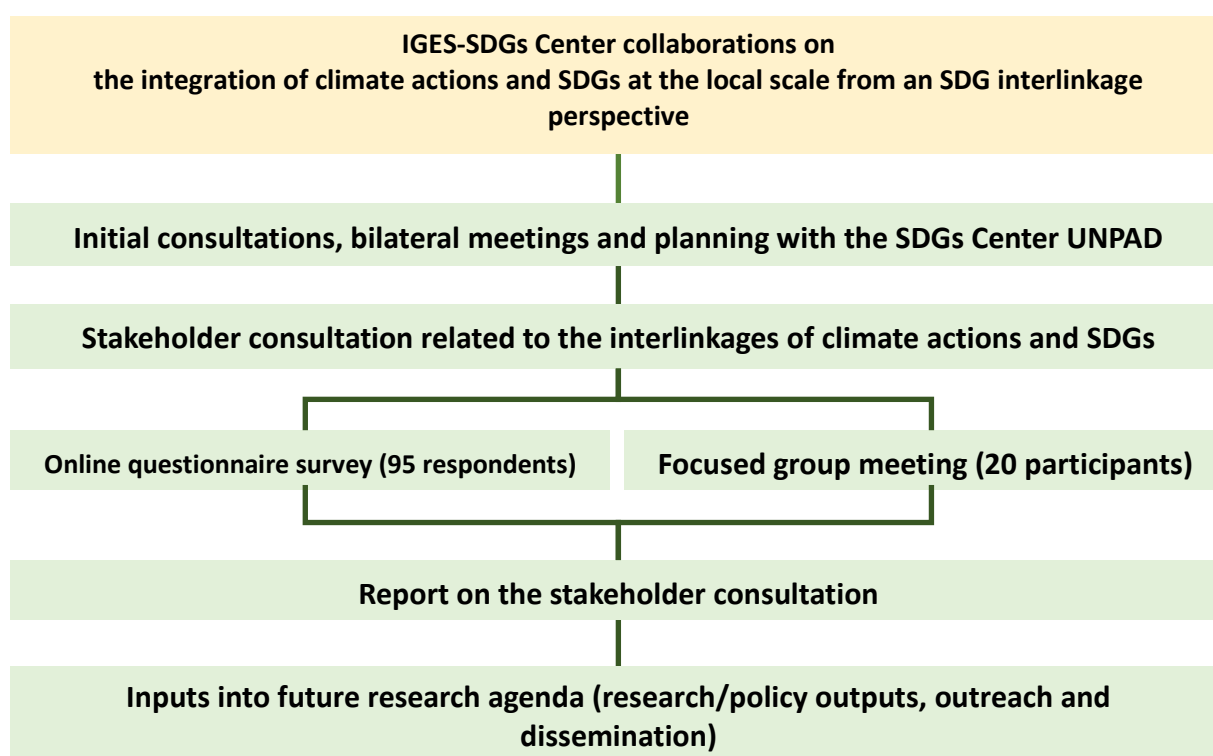
Currently, the government of West Java Province lacks a method to systematically evaluate SDG agenda implementation due to limited governmental budget. No provincial roadmap has been prepared and stakeholder coordination has been slow. This is partly due to the focus on routine work and more recently, COVID-19 pandemic management. Concerns therefore exist concerning stakeholder recognition and awareness of the SDGs. Often it is assumed that sole responsibility for the SDGs lies with BAPPENAS and BAPPEDA. This is further aggravated by the insufficient human resources capacity of the SDGs Secretariat in the West Java Province Planning and Development Agency (Anna, 2020).

Mainstreaming of the SDGs agenda in developmental and budgeting documents at the provincial level is

relatively weak as the regional government considers RPJMD implementation to have more political impact on such development and budgeting than the SDGs (which are often perceived as just a global agenda). Therefore, regional governments tend to prioritize implementation of the RPJMD agenda over the SDGs agenda (Anna, 2020).

#### 4. Outline of stakeholder consultation activity: Process and methodology

The stakeholder consultation activity in West Java Province was designed to study how climate actions and the SDGs can be integrated at the subnational levels. IGES held several preparatory meetings with its local partner in West Java, the SDGs Center. Specific issues such as the mode of conducting the consultation, topics of consultation, compilation of the results, interpretation and results validation were discussed with the SDGs Center at the planning stage. It was decided to develop the stakeholder consultation activity in two parts: a questionnaire-based survey followed up by a half-day, intensive FGD meeting. Figure 2 below provides an overview.



**Figure 2.** Overview of the steps in the stakeholder consultation in West Java

##### *Online questionnaire survey*

The questionnaire was designed in consideration of the target respondents and the survey itself was conducted over a period of two weeks, from 15 to 30 December 2020. The target respondents, selected

through consultation with the SDGs Center were chosen from those working in local public offices, those involved with SDG-related activities, utility service providers, representatives from non-governmental organisations (NGOs), academia, and the private sector – in particular those from local government agencies and dealing with SDG-related planning and implementation – in accordance with the respondents' area of work, expertise and availability during the survey period. To ensure the survey scope covered the study's focus area, only respondents with organisational affiliation in West Java (either provincial or city/regency level) were invited to participate in the online survey.

The questionnaire focused on identifying local perspectives on the issues, challenges and priorities of the SDGs and climate change planning and implementation in West Java. The full questionnaire is provided in the Appendix. The questions covered the following broad topics:

- Queries related to the respondents' institution (type of business, familiarity with and relevance of SDGs and climate change issues)
- Relationships of planning and implementation of SDGs at national and regional/provincial/local levels
- SDG planning and implementation at national and provincial levels
- Major progress and challenges in SDG implementation
- Agencies involved in SDG implementation in West Java
- Involvement of stakeholders in SDG promotion and implementation
- Major agriculture, industry and service sectors in West Java
- Major economic, social, environmental, climate, and governance-related issues and challenges in West Java, including their linkages with the 17 SDGs
- Relevance and significance of climate change for West Java

The questionnaire was translated into Bahasa (Indonesian language) for the stakeholders. To avoid COVID-19 related risks, the survey was conducted online using Google Forms and sent to 186 respondents in 125 different institutions, from which 95 responded from 68 institutions. Responses were analysed by IGES and the SDGs Center and compiled into a summary report for discussion at the FGD meeting, described below.

#### *FGD meeting*

Subsequent to the online survey a draft report was compiled, and around 20 of the respondents were invited to a half-day FGD meeting, on 27 January 2021. The object of the meeting, held virtually due to COVID-19 restrictions, was to share the survey findings for validation as well as feedback from the respondents. Participants of the FGD meeting were selected by the SDGs Center based on their area of expertise and the purpose of the FGD. The FGD meeting comprised two sessions. The first included an overview of the results of the online survey and a presentation on SDG planning and implementation in West Java (presented by BAPPEDA, the Regional Planning and Development Body of West Java). The second session was designed as a deep-dive theme-based discussion of the survey findings to clarify certain results and identify the most important issues for West Java in the economic, environmental, social and climate change areas, as a form

of feedback to the participants. Two moderated breakout groups were formed (one focusing on economy and society and the other on environment, climate change, and governance) to ensure discussions were more focused and results-oriented. The session was arranged to take place in Bahasa to encourage more spontaneous participation from the FGD members. Dialog was guided using pre-developed discussion and feedback templates, and the findings from this meeting were compiled into a summary report.

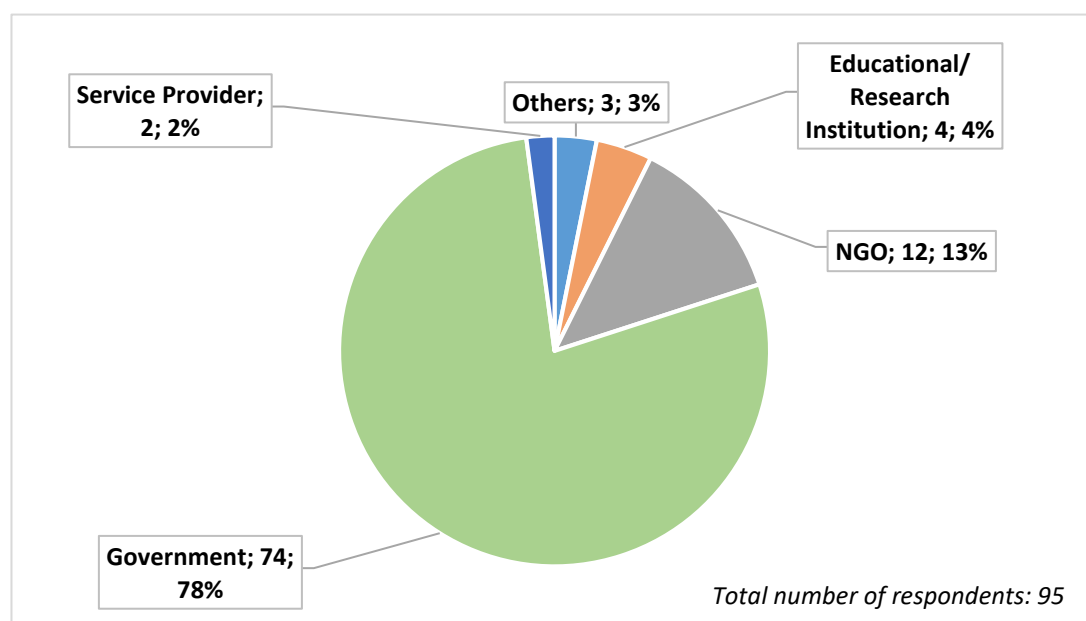
A brief synopsis of these three components (status quo, online survey and the FGD meeting) is provided below.

## **5. Online questionnaire survey and major findings**

A total of 95 responses were received through the online survey, higher than the initially 60 anticipated. A closer look into the responses revealed that while opinions differed, due to differing backgrounds, some commonalities in aspects of understanding existed across virtually all respondents, such as the need for engaging local stakeholders in SDG and climate action planning. The results of the survey are summarised below in correspondence with the issues covered by the questions.

### *Survey participants*

While the survey intended to include participants from various sectors, the views of government officials were particularly desired, thus most responses were from government institutions, notably local government authorities, including those in charge of planning, monitoring and implementation of various development plans. The next largest category was NGOs, and the related questions mostly dealt with community development, advocacy and disaster-related issues. Responses from the private sector and academics were relatively few. Many respondents, especially those in public institutions, were aware of SDGs and climate change-related issues despite not having direct relevance to their fields of work. More than half of the respondents held that the SDGs offered an important point of reference in policies and strategies of their respective organizations or institutions. Awareness of climate change was found to be lower than of the SDGs.



**Figure 3.** Ratio of survey participants from various sectors

#### *Planning and implementation at the national and local level*

More than half of the respondents felt a gap was present between national and local planning and implementation and that the national SDG agenda or climate actions are not adequately reflected at the local level in West Java. Over half of the respondents (55%) felt that local governments should develop their own SDGs indicators to monitor the progress of implementation.

#### *Major agriculture, industry and service sectors in West Java*

The respondents identified agriculture, industry and services as the key economic sectors in West Java. The top three components of the sectors are given in Table 1.

**Table 1.** Major agriculture, industry and service sectors in West Java

Economic subsector	Components
<b>Agriculture</b>	<ol style="list-style-type: none"> <li>1. Crops</li> <li>2. Horticulture</li> <li>3. Farming</li> </ol>
<b>Industry</b>	<ol style="list-style-type: none"> <li>1. Textiles</li> <li>2. Food and beverages</li> <li>3. Leather and leather products</li> </ol>
<b>Service</b>	<ol style="list-style-type: none"> <li>1. Wholesale and retail trade</li> <li>2. Food/beverage supply</li> <li>3. Transportation and warehousing</li> </ol>

*Major economic, social, environmental, climate, and governance-related issues and challenges in West Java, including their linkages with the 17 SDGs*

The survey participants identified specific challenges and issues related to the economy, environment and climate change in West Java, as summarised in Tables 2, 3 and 4.

**Table 2.** Challenges to economic development in West Java

Educational/research institution	NGOs	Government	Private entities
<ul style="list-style-type: none"> <li>The economic sector is mainly supported by informal activities.</li> <li>Lack of job opportunity</li> <li>Low Human Resources quality</li> </ul>	<ul style="list-style-type: none"> <li>Low commitment to empowering of small- &amp; medium enterprises</li> <li>Lack of infrastructure</li> <li>Low human resources quality due to poor education services</li> <li>Low concern for environmentally safe development approaches</li> <li>Insufficiently utilized local economic resources</li> <li>Income inequality</li> <li>Social inequality</li> <li>Limited land availability for agriculture</li> </ul>	<ul style="list-style-type: none"> <li>Economic development inequality among regions</li> <li>Low utilization of local economic resources</li> <li>Low human resources quality due to lack of training</li> <li>High population growth</li> <li>Land use transformation from agriculture to industry</li> <li>Low attention to the development of small enterprises and cooperatives</li> <li>High poverty rate</li> <li>High susceptibility to disasters triggered by climate change</li> <li>Lack of regulations related to investment</li> <li>Low agricultural production</li> <li>Industrial development that ignores environmentally safe approaches</li> </ul>	<ul style="list-style-type: none"> <li>Lack of concern for small and medium enterprises</li> <li>Low commitment to industrial waste management</li> <li>Low Human Resources quality</li> <li>Economic development inequality among regions</li> </ul>

**Table 3.** Challenges in social development in West Java

Educational/research institution	NGOs	Government	Private entities
<ul style="list-style-type: none"> <li>• Low public awareness of the importance of social development</li> <li>• Unequal access to education services</li> <li>• Gender inequality</li> </ul>	<ul style="list-style-type: none"> <li>• High poverty rate</li> <li>• Unequal access to basic public services</li> <li>• Low critical thinking ability of the public</li> <li>• Gender inequality</li> <li>• Social and economic inequality</li> <li>• Low human resources quality due to poor education service quality</li> <li>• Social violence and discrimination</li> </ul>	<ul style="list-style-type: none"> <li>• Unmanaged demographic bonus</li> <li>• Change of public values towards more individual-focused society</li> <li>• Higher poverty rate</li> <li>• Social inequality</li> <li>• Lack of basic social service provision (education and health)</li> <li>• Low human resources quality, contributing to high unemployment rate</li> <li>• Lack of disaster management system</li> <li>• Low coverage of social protection</li> <li>• COVID-19 pandemic</li> </ul>	<ul style="list-style-type: none"> <li>• High population growth contributing to low human resources quality</li> <li>• Inequality in access to education</li> <li>• Low public awareness of the importance of social development</li> <li>• Low public adaptability to social and political change</li> </ul>

**Table 4.** Environmental issues in West Java

Type of institution	Environmental problems			
	• Pollution-related	• Major resource use-related	• Conservation-related	• Other environmental problems
Educational/research institution	• Unmanaged industrial waste	• Low stock of clean water	• Heavily economic-based development	
NGOs	• High air and water pollution • Unmanaged industrial waste	• High exploitation of natural resources • High exploitation of human resources • Social conflict • Low stock of clean water • Damage of oceanic environment	• Extensive mining and deforestation • High land-use shift rate for industry, housing and infrastructure needs • Lack of proper waste and dirty water management	• Emergence of new industrial areas • Recurring natural disasters • Women harassment caused by conflicts in environment issues
Government	• Unmanaged industrial waste • Air pollution from the transport sector • High volume of domestic waste • Shift of land use for industry and mining purposes	• Social conflict • High exploitation of natural resources • High rate of land use shift for industry and housing needs • Deteriorating forests due to expansion of agriculture sector, resulting to low stock of clean water	• High rate of land-use shift for industry and housing • Water, air and soil pollution • Climate change • Untreated industrial waste management • Degradation of water catchment areas • Extensive mining activities • Coastal environmental degradation	• Many infrastructure developments not based on environment-friendly approach
Private entities	• Unmanaged industrial waste • Lack of green space • High volume of domestic waste	• Low stock of clean water • River sedimentation and floods	• High rate of land-use shift for industry, agriculture housing and infrastructure needs	• High rate of land-use shift for housing needs

### *Progress and challenges of SDG implementation in West Java*

Almost all respondents noted some progress in the implementation of the SDG agenda in West Java, and some opined implementation was slow. Overall, respondents believed progress in SDG implementation in West Java could be faster, better coordinated, and with integrated activities and more SDG awareness. Table 5 below summarises the identified challenges in SDG implementation. From the local government's perspective, budget and fiscal capacity, lack of data, and lack of regulations guiding different development plans were found to be among the major challenges.

**Table 5.** Challenges in SDG implementation in West Java as identified by the survey participants

Type of Institutions	Challenges of SDGs Implementation
<b>Educational/research institution</b>	<ul style="list-style-type: none"> <li>• Sustainability of SDG implementation due to lack of awareness among the public, low commitment from authorities, and budget constraints, among others</li> </ul>
<b>NGOs</b>	<ul style="list-style-type: none"> <li>• Insufficient commitment to SDGs</li> <li>• Adapting to fully implementing SDG agenda takes some time</li> <li>• Difficulty to integrate development visions of all regions in West Java Province to accommodate the SDG agenda</li> <li>• Lack of socialization of SDGs Action Plan</li> </ul>
<b>Government</b>	<ul style="list-style-type: none"> <li>• Lack of regulations guiding integration of disparate development documents</li> <li>• Lack of data accuracy</li> <li>• Lack of coordination among SDG stakeholders</li> <li>• Only partial implementation of SDGs</li> <li>• Limited budget for SDG implementation</li> <li>• Varying development conditions among regions</li> </ul>
<b>Private entities</b>	<ul style="list-style-type: none"> <li>• Low financial capacity</li> <li>• Uncertainty on sustainability</li> </ul>

### *Climate change and SDGs links*

The respondents also identified the relationships or interlinkages of selected key issues related to the economy, community, environment, and governance with respective SDGs. These key issues, which were identified prior to the online survey on the basis of literature review and expert judgement by the IGES and SDGs Center UNPAD team, were included in the online survey questionnaire to elicit views from respondents.

The interlinkages are provided in Tables 6 to 8. Regarding the links of issues with SDG 13 on climate action, these results provide some key insights on how localised SDG actions in West Java can help address climate change.

#### *Economic issues*

In the field of economics (Table 6), the respondents found linkages of all four key issues – income inequality, unemployment, infrastructure and economic growth and stability – with SDG 13 on climate action. According to the survey results, 15% of respondents felt income inequality is linked with climate change, which implies that the poor will suffer more severe impacts from climate change. Reducing income inequality in West Java will help improve the resilience of society to climate change, as would developing adequate and sustainable infrastructure and creating employment opportunities. Nearly one third of the respondents also found links between West Java's efforts in economic growth and stability with climate change. The pursuit of economic growth that ignores resource use efficiency and pollution may aggravate climate change. While the region's economy needs to continue growing, decoupling this growth from pollution and other forms of environmental degradation will be necessary to combat climate change.

**Table 6.** Relationship of SDGs with selected economic issues

ECONOMY	Goal 1 No poverty	Goal 2 Zero hunger	Goal 3 Good health and well-being	Goal 4 Quality education	Goal 5 Gender equality	Goal 6 Clean water and sanitation	Goal 7 Affordable and Clean energy	Goal 8 Decent work and economic growth	Goal 9 Industry, innovation and infrastructure	Goal 10 Reduced inequalities	Goal 11 Sustainable cities	Goal 12 Responsible consumption and production	Goal 13 Climate action	Goal 14 Life below water	Goal 15 Life on land	Goal 16 Peace, justice and strong institutions	Goal 17 Partnerships for the goals
Income Inequality	79%	57%	66%	42%	34%	31%	17%	46%	22%	52%	0%	32%	15%	9%	12%	20%	20%
Unemployment	75%	61%	58%	44%	27%	15%	11%	58%	21%	40%	19%	19%	9%	7%	8%	19%	20%
Inadequate infrastructure	33%	27%	51%	27%	15%	49%	41%	22%	49%	24%	35%	15%	31%	19%	24%	12%	23%
Econ. growth and stability	58%	47%	56%	35%	34%	26%	27%	57%	39%	47%	32%	42%	29%	18%	24%	28%	36%

Colour legend

76% - 100%  
responses51% - 75%  
responses26% - 50%  
responses0% - 25%  
responses

*Social/community issues*

Among the social issues, access to energy was found to be most relevant for climate actions in West Java (Table 7). The nature of this linkage depends on the sources of energy used to ensure access. If renewables are used, it will reinforce climate actions, but fossil-based sources will exacerbate climate change. Inappropriate and inefficient agricultural activities such as overgrazing or activities leading to land degradation, which was found relevant by many respondents, can reduce West Java's climate resilience. Other issues such as access to clean water, food security, urbanization, and social inequality were also found to be related to climate change. Some respondents also found education to be relevant to climate actions, implying it could help address climate change such as by providing job opportunities and reducing overdependence on nature and by creating awareness on sustainable lifestyles.

**Table 7.** Relationship of SDGs with selected social/community issues

COMMUNITY	Goal 1 No poverty	Goal 2 Zero hunger	Goal 3 Good health and well-being	Goal 4 Quality education	Goal 5 Gender equality	Goal 6 Clean water and sanitation	Goal 7 Affordable and Clean energy	Goal 8 Decent work and economic growth	Goal 9 Industry, innovation and infrastructure	Goal 10 Reduced inequalities	Goal 11 Sustainable cities	Goal 12 Responsible consumption and production	Goal 13 Climate action	Goal 14 Life below water	Goal 15 Life on land	Goal 16 Peace, justice and strong institutions	Goal 17 Partnerships for the goals
Social Inequality	76%	51%	63%	39%	39%	25%	20%	36%	16%	38%	0%	22%	13%	12%	16%	27%	31%
Urbanization	56%	43%	56%	29%	22%	27%	14%	36%	21%	27%	6%	20%	13%	5%	14%	18%	17%
Gender inequality	29%	20%	43%	29%	65%	13%	5%	17%	11%	26%	0%	9%	7%	3%	4%	20%	20%
Access to clean water	34%	25%	57%	14%	11%	69%	19%	5%	19%	15%	1%	15%	18%	11%	15%	4%	11%
Access to energy	29%	20%	36%	11%	16%	12%	28%	14%	21%	13%	0%	13%	28%	12%	13%	5%	12%
Access to Education	40%	27%	44%	71%	31%	5%	8%	29%	15%	29%	2%	8%	11%	5%	5%	20%	16%
Access to health serv.	40%	28%	78%	16%	21%	26%	13%	17%	14%	26%	0%	8%	7%	3%	3%	15%	13%
Food security	48%	68%	52%	14%	14%	16%	6%	25%	12%	16%	0%	35%	20%	12%	19%	7%	16%
Agricultural activity	39%	53%	40%	9%	15%	13%	6%	24%	19%	12%	0%	33%	25%	11%	28%	6%	16%

Colour legend

76% - 100%  
responses51% - 75%  
responses26% - 50%  
responses0% - 25%  
responses

### *Environmental issues*

Many environmental issues in West Java were found to be related to climate change (Table 8). SDG 13 on climate action itself was found to be most linked with health (SDG 3) and water (SDG 6), and also linked with poverty and hunger (SDGs 1 and 2), energy (SDG 7), water and land biodiversity (SDGs 14 and 15). These findings reiterate the need for integrating climate actions in other SDGs. Climate change has the potential to trigger severe impacts in West Java, including (i) in the agriculture sector (lengthening of dry season, affecting water supply), (ii) famine (due to unfavourable conditions for agriculture), (iii) health and sanitation (due to lack of water supply), and (iv) economic and possible political impacts (triggered by the above factors). The respondents found air and water pollution and deforestation to be the major climate-related problems in West Java. As the region is hilly, protecting the mountain ecosystem along with aquatic and terrestrial ecosystems and biodiversity will also be important for building the region's climate resilience. Improved waste management systems and disaster risk reduction measures are also important for West Java. As a high share of responses linked climate change with environmental issues, this indicates West Java may be facing some serious underlying environmental challenges, and formulating policies to address them would help reinforce efforts in climate change mitigation and adaptation.

**Table 8.** Relationship of SDGs with selected environmental issues

ENVIRONMENT	Goal 1 No poverty	Goal 2 Zero hunger	Goal 3 Good health and well-being	Goal 4 Quality education	Goal 5 Gender equality	Goal 6 Clean water and sanitation	Goal 7 Affordable and Clean energy	Goal 8 Decent work and economic growth	Goal 9 Industry, innovation and infrastructure	Goal 10 Reduced inequalities	Goal 11 Sustainable cities	Goal 12 Responsible consumption and production	Goal 13 Climate action	Goal 14 Life below water	Goal 15 Life on land	Goal 16 Peace, justice and strong institutions	Goal 17 Partnerships for the goals
Climate Change	31%	34%	42%	14%	14%	37%	31%	21%	24%	13%	0%	23%	60%	32%	32%	13%	26%
Pollution (air/water)	17%	16%	44%	13%	9%	41%	29%	15%	26%	9%	0%	23%	41%	38%	33%	9%	22%
Waste management	25%	8%	45%	16%	15%	36%	19%	14%	21%	7%	2%	26%	26%	22%	31%	11%	18%
Disaster mitigation	34%	27%	40%	23%	17%	15%	11%	17%	19%	12%	5%	17%	38%	19%	20%	21%	24%
Biodiversity	23%	31%	35%	9%	7%	24%	12%	13%	12%	9%	1%	26%	21%	43%	45%	9%	18%
Aquatic and terrestrial ecosystems	21%	26%	36%	13%	6%	28%	16%	12%	15%	5%	2%	19%	24%	51%	49%	9%	16%
Deforestation	23%	28%	29%	12%	5%	22%	13%	14%	13%	7%	2%	20%	39%	12%	53%	11%	15%
Mountain Ecosystem	22%	27%	28%	14%	7%	24%	15%	14%	11%	6%	1%	20%	31%	11%	55%	8%	18%

Colour legend

76% - 100%  
responses51% - 75%  
responses26% - 50%  
responses0% - 25%  
responses

*Governance issues*

Adopting the right policies and implementing them properly in any of the developmental domains requires appropriate governance and institutional setup (Madon, 2009; Kardos, 2012). For climate change, the respondents found that the rule of law and relations with the central government are highly relevant in West Java (Table 9) – the latter of which is particularly important for aligning local actions with national ones, since regulations related to the environment are mainly created by the central government. Other major governance-related issues in West Java that are relevant for climate actions include the overall governance situation, enabling environment for business opportunities and curbing corruption.

**Table 9.** Relationship of SDGs with selected governance issues

GOVERNANCE	Goal 1 No poverty	Goal 2 Zero hunger	Goal 3 Good health and well-being	Goal 4 Quality education	Goal 5 Gender equality	Goal 6 Clean water and sanitation	Goal 7 Affordable and Clean energy	Goal 8 Decent work and economic growth	Goal 9 Industry, innovation and infrastructure	Goal 10 Reduced inequalities	Goal 11 Sustainable cities	Goal 12 Responsible consumption and production	Goal 13 Climate action	Goal 14 Life below water	Goal 15 Life on land	Goal 16 Peace, justice and strong institutions	Goal 17 Partnerships for the goals
Rule of law	44%	32%	41%	28%	36%	19%	18%	29%	26%	32%	0%	20%	24%	21%	21%	61%	39%
Governance situation	46%	40%	44%	32%	31%	20%	22%	33%	33%	32%	0%	24%	22%	19%	19%	57%	41%
Relations with central government	44%	37%	41%	32%	29%	21%	20%	32%	33%	29%	1%	23%	24%	22%	20%	48%	49%
Enabling environment for business opportunities	41%	36%	39%	21%	20%	22%	22%	43%	37%	29%	4%	29%	22%	20%	20%	27%	41%
Corruption	49%	40%	43%	31%	14%	16%	17%	23%	26%	28%	0%	21%	15%	14%	14%	47%	33%

Colour legend

76% - 100%  
responses51% - 75%  
responses26% - 50%  
responses0% - 25%  
responses

## 6. Summary of the findings of the Focused Group Discussion (FGD) Meeting

As explained above, the FGD meeting conducted a deep-dive discussion of the findings from the online survey to identify the core economic, social, environmental and climate change issues and their relations with the SDGs. This took the form of two breakout sessions among the selected group of experts based on IGES guidelines, which identified a number of core issues, shown in Table 10, which are described below.

**Table 10.** Core issues and problems identified by the experts in the FGD meeting

Sector	Core issues/problems	Comments on the links with SDGs/other observations	Links with climate change and climate actions
<b>Economy</b>	<ul style="list-style-type: none"> <li>• Low human resources quality</li> <li>• Lack of job opportunities</li> <li>• Dependence of economic sector on informal activities</li> <li>• Low concern over environmentally safe development approaches</li> <li>• Economic development inequality among regions</li> </ul>	<p>The online survey found many links with SDGs 1 to 3 due to the respondents' perception that addressing poverty, access to food and health care are considered to be the main objectives of economic development.</p>	<p>Low human resources quality hinders job opportunities, leading to dependence on informal activities or on nature. These activities may cause pollution, deforestation and land degradation, aggravating climate risks.</p> <p>Similarly, economic growth and development approaches without environmental safeguards exacerbate climate change and hinder the adoption/implementation of climate actions.</p>
<b>Society</b>	<ul style="list-style-type: none"> <li>• High poverty rate</li> <li>• Low human resources quality due to low education service quality</li> <li>• Social and economic inequality</li> <li>• Gender inequality</li> <li>• Inequality in access to education</li> </ul>	<p>The high rate of poverty is related to low access to education, the quality of which is affected by the limited education budget.</p> <p>The COVID-19 pandemic heavily impacts on social conditions, thus SDG 3 is very important.</p> <p>The survey results showed low linkages with SDG 11 (sustainable cities), assumed to be due to low understanding of its goal by participants, as well as higher priority on SDGs 1–3 in West Java.</p>	<p>The poor often resort to the environment for livelihoods, thus poverty must be lowered to reduce pressures on it.</p> <p>Low human resources quality limits income opportunities and hinders implementation of policies aimed at tackling climate risk and environmental degradation.</p> <p>To increase the region's climate resilience, West Java also needs to reduce social, economic and gender inequalities.</p>

<b>Environment and climate change</b>	<ul style="list-style-type: none"> <li>• Pollution-related problems (industrial waste and domestic waste)</li> <li>• Major resource-use related problems</li> <li>• Conservation-related problems</li> <li>• Other environmental problems</li> </ul>	<p>Although environmental issues did not feature strongly in the survey results, the issue is crucial for the province owing to the susceptibility of parts of it to climate-change-related disasters, e.g., floods and droughts.</p> <p>Lack of law enforcement and budget constraints aggravate West Java's environmental problems.</p> <p>The West Java Province authority has initiated measures in the following areas:</p> <ul style="list-style-type: none"> <li>• Climate change mitigation</li> <li>• Promotion of renewable energy</li> <li>• Enhancing energy efficiency</li> <li>• Natural disaster mitigation, e.g., floods</li> <li>• Conservation-based city developed</li> <li>• Critical land rehabilitation</li> <li>• Sustainable food region</li> <li>• Community-based forest management</li> </ul>	<p>West Java Province faces several critical environmental challenges that may inhibit climate change adaptation.</p> <p>Pollution, resource use, and conservation were the key environmental issues with implications for climate change. Climate change could trigger severe impacts in West Java, such as longer dry seasons and water supply issues, which could lead to famine and health and sanitation problems due to degraded agriculture, and if prolonged, reduced economic and political stability of the region.</p> <p>Cognizant of the gravity of the problem, local authorities have initiated several measures for climate change mitigation and are addressing environmental degradation.</p>
<b>Governance</b>	<p>Corruption is the chief problem in West Java, and strongly correlated with the low integrity of West Java Government personnel.</p>	<p>Due to decentralization, authority has been partially transferred from central to regional government at provincial and municipal/district levels. However, many environment-related regulations are chiefly created by central government.</p> <p>Participants agreed that business opportunities would increase if institution and governance mechanisms functioned properly.</p>	<p>Adopting the right policies and implementing them properly in any development domain requires appropriate governance and institutional setup. The biggest impediment to implementing climate actions and environmental policies is corruption, thus improved governance and institutional setup in West Java and better links with central government are critical to proper implementation of these policies.</p>

As part of the decentralisation processes, in many countries, including Indonesia, the responsibility for implementing multiple agendas is devolved to local and regional governments, such as West Java, which do not, however, always receive adequate fiscal resources to implement them. This is particularly problematic in Indonesia, where local governments are underfunded and understaffed, which often leads them to rely more heavily on extractive industries to fill the financing gaps. Through the FGD and online survey, budgetary constraints and low financial capacity were elicited as major challenges to implementing the climate and SDG agenda in West Java. Other important insights are given below.

First, low human resources quality (SDG 4) is a major concern, due to its implications for several SDGs areas, including decent job opportunities and dependence on informal activities (SDG 8), waste generation and continued pollution, deforestation and land degradation (SDG 6, 8, 11, 12, 14, 15), and aggravated climate change (SDG 13).

Second, widespread poverty (SDG 1) leads to overdependence on the natural surroundings for livelihoods, making it difficult to implement appropriate policies to tackle climate risks (SDG 13) and environmental degradation (SDG 6, 7, 12, 13, 14, 15).

Third, persistent social, economic and gender inequalities (SDG 1–5, 8, 10) have remained unaddressed. Pollution, resource use, and conservation are the most critical environmental challenges that may inhibit adapting to climate change.

Fourth, climate change (SDG 13) has the potential to trigger severe impacts. For instance, agriculture (SDG 2) may be affected by longer dry seasons and water supply issues (SDG 6), which in turn may lead to famine as well as health and sanitation problems (SDG 2, 3, 6). Prolongation of these problems may eventually also affect the economy (SDG 8) and political stability (SDG 16) of the province.

Fifth, adopting appropriate policies and implementing them thoroughly in any of the developmental domains requires appropriate governance and institutional setup. The FGD experts, for example, found corruption (SDG 16) to be the most important issue affecting implementation of climate actions (SDG 13) and other environmental policies. Improvements in overall governance and institutional setup (SDG 16) in West Java and adequate links with the central government (SDG 16) are critical to ensuring the proper implementation of these policies.

## 7. Conclusion

Integrating climate actions and the SDGs poses some major governance-related challenges, in the forms of horizontal integration across different governmental agencies and vertical interactions among different levels of administrative decision making, while at the same time ensuring effective participation of relevant stakeholders in the policymaking processes (Betsill and Bulkeley, 2006; Zusman and Amanuma, 2018). There is increasing recognition that vertical interactions can help bridge the gaps between global, national and

local policy processes (Corfee-Morlot *et al.*, 2009). In this respect, local and subnational authorities such as provinces and cities play crucial roles due to their potential for dynamic responses to climate change and sustainable development issues (Ozawa-Meida *et al.*, 2021). However, it is unclear whether policymakers and other stakeholders recognise such potential or have the financial resources and institutional arrangements needed to capitalise upon it. The current study explores these issues and questions for West Java, a region of a country that is moving rapidly on its climate and SDG agenda.

The online survey as well as focused group discussions with local authorities, the private sector and academia helped identify some of the intrinsic characteristics of West Java province in its efforts toward the SDG and climate change planning and implementation within the local context. It is clear that while national policy processes provide an overall framework for these two agendas, West Java has its own challenges and immediate priorities that need to be reflected in local policies and plans. Several issues, such as budgetary limitations, the persistence of high poverty rates among various segments of the population, the need for higher quality education and human capital, and the over-dependence on the informal sector featured strongly in the discussions with stakeholders. The Level of awareness of climate change and environmental degradation-related risks, the participants noted, is relatively low, despite such issues representing major threats to the long-term sustainability and resilience of the region. Inadequate governance and institutional infrastructure were also noted as major issues requiring urgent attention. In addition, it is important to ensure that localisation processes are in harmony with national processes, to ensure their effectiveness.

The results of the stakeholder consultation in this study indicate that West Java in particular and Indonesia in general need to reassess the circumstances surrounding public financing and clarify budget lines, as well as reduce competition between separate budget lines for the overall development plan, climate change and SDGs. There is also potential to strengthen institutional and policy coherence between national and local levels, which can be achieved through seconding and staffing rotations. Joint development of SDG and climate plans across local and regional levels, such as through interagency coordination mechanisms or committees would also help at the local level. In addition, empowering civil society to raise levels of accountability for spending and policy decisions on climate and the SDGs would help limit corruption and enable the necessary follow-through.

The stakeholder engagement activity presented in this paper helped provide a better understanding of the local context of SDG and climate actions planning and implementation in West Java, including the links between the two policy processes and among the SDGs themselves. Understanding these interactions is a major step to integrating SDGs and climate actions in development plans. The results of the stakeholder consultation can help shape the design of this integrated approach, which also needs to account for the socio-economic and biophysical characteristics of the region, and the priorities and challenges it faces. The knowledge gained through this exercise will also be essential for future science-based studies, such as for in-depth SDG interlinkage analysis that the authors have planned to undertake to support SDG and climate action localisation in West Java. Under this planned study, the results of the stakeholder consultations will be used as inputs in the mapping of SDG interlinkages tailored to West Java, with the model generated usable as a practical tool to analyse synergies and trade-offs for identifying key SDG targets, priority setting

and so forth. Such research works can provide important insights and support for local policy processes, including for development of Voluntary Local Reviews.

The knowledge gained through this stakeholder engagement activity can assist in similar attempts in other regions, cities and provinces within and beyond Indonesia. As mentioned above, the entire stakeholder engagement activity was conducted online due to limitations imposed by the COVID-19 pandemic; however, future activities could incorporate face-to-face discussions and field visits, to obtain a more precise picture of perspectives on SDG and climate action-related processes in the study areas.

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## **Appendix: Online survey questionnaire (English version)**

### **IGES-SDGs Center UNPAD Survey on Integrating climate actions and SDGs at the subnational level in West Java**

#### ***Background***

The 2030 Agenda for the [Sustainable Development Goals \(SDGs\)](#) and the [Paris Agreement](#) offer an unprecedented opportunity to transform the world for a sustainable future, but the enormous challenges facing this transformation suggest that subnational level authorities and other stakeholders need to be directly involved with the national governments in SDG implementation. This seems logical since, in many countries, many of the policy-related competencies in the areas of water, housing, infrastructure, land-use and climate change fall within the ambit of the cities and regions. Indeed, while both the SDGs and the Paris Agreement are global commitments, their implementation has to be handled at the local level, therefore local and regional governments both have to play significant roles. As a diverse country with a large population and regional disparity, Indonesia poses a practical example of why subnational-level SDG planning needs to take place in parallel with national plans.

The Center for Sustainable Development Goals Studies (SDGs Center) at the Universitas Padjadjaran, in cooperation with the Institute for Global Environmental Strategies (IGES) in Japan, is developing knowledge on and providing support for subnational level SDG planning and implementation in Indonesia. To this end a case study on localising the SDGs in West Java province in Indonesia is being produced. Further, IGES has developed a unique methodology ([the IGES SDG Interlinkages Analysis & Visualisation Tool](#)) to analyse how the SDGs are linked with each other and how these links can be utilised in leveraging synergies among multiple SDGs and minimising the trade-offs (Zhou, Moinuddin and Li, 2021). This SDG interlinkages perspective helps integrated SDG planning and implementation in a resource-efficient manner. However, these intrinsic links and features are context-specific and vary not only across countries but also across regions within them. In this respect, local stakeholders are ideally situated to provide key insights into local contexts in the study of SDG interlinkages.

#### ***Purpose of the stakeholder consultation***

The plan for stakeholder consultations was developed from the above considerations for a study on localising the SDGs and climate actions in West Java Province, Indonesia. The purpose of this stakeholder consultation was to identify key issues related to SDG planning and implementation in West Java, with a particular focus on linking climate actions and the SDGs. [The IGES SDG Interlinkages Analysis & Visualisation Tool](#), which was used in the study, utilises causal links among the SDGs and subsequent quantification based on indicator-level scientific data. The causal links among the SDGs, while providing a strong basis for the study, are as mentioned above context-specific. The stakeholder consultation thus provided an opportunity for the SDGs Center and IGES to build knowledge on local-level SDG interlinkages and to jointly develop policy options for integrating climate actions and the SDGs. In so doing, it also co-opted participation from local stakeholders, raising their awareness on these issues. The stakeholder consultation survey was followed up with a validation and dissemination workshop (held online) with selected participants.

The survey questions are divided into three parts. Part A focuses on the respondent's job affiliation and organisational activities, while Part B and Part C focus on national and provincial contexts related to the SDGs and climate change.

### Survey questions

Affiliation	
Name of the respondent	
Position	
Phone/email address	

### **RESPONDENT'S ORGANISATION**

**What is the type of your organization/institute?**

- a. Government (national / regional / provincial / local)
- b. Service provider
- c. Corporate
- d. NGO / Civil society
- e. Academic / Think tank
- f. Media
- g. Other

Any additional information:

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**2. Is your organisation located in, or have presence in, West Java?**

- a. Yes
- b. No

**3. What does your organisation do and what is your role?**

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**4. Is your organisation and its staff members familiar with (1) [the 2030 Agenda and the Sustainable Development Goals \(SDGs\)](#) and (2) the [Paris Agreement](#) on Climate Change? (please circle either the SDGs or climate change, or both)**

- a. SDGs / climate change provide an important reference in the organisation's policies and strategies.
- b. Most of our staff members are highly familiar with the SDGs / climate change and refer to it/them in their work.
- c. Some staff members may be aware of the SDGs / climate change, but it/they are not very relevant to the organisation's activities.

**5. Is your organisation directly involved or interested in SDG / climate change related activities?**

- a. Yes
- b. No

If yes, which department coordinates work related to the SDGs?

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Which SDGs does your organisation's work relate to?

- SDG 1** No Poverty
- SDG 2** Zero Hunger
- SDG 3** Good Health and Well-being
- SDG 4** Quality Education
- SDG 5** Gender Equality
- SDG 6** Clean Water and Sanitation
- SDG 7** Affordable and Clean Energy
- SDG 8** Decent Work and Economic Growth
- SDG 9** Industry, Innovation and Infrastructure
- SDG 10** Reducing Inequality
- SDG 11** Sustainable Cities and Communities
- SDG 12** Responsible Consumption and Production
- SDG 13** Climate Action
- SDG 14** Life Below Water
- SDG 15** Life On Land
- SDG 16** Peace, Justice, and Strong Institutions
- SDG 17** Partnerships for the Goals

**NATIONAL CONTEXT**

- 6. What are the relationships of planning and implementation of SDGs at the national level and at the regional/provincial/local levels?**

- *SDG coverage at the regional/provincial/local levels*

a. All

b. Some (Please select from the following list)

**SDG 1** No Poverty

**SDG 2** Zero Hunger

**SDG 3** Good Health and Well-being

**SDG 4** Quality Education

**SDG 5** Gender Equality

**SDG 6** Clean Water and Sanitation

**SDG 7** Affordable and Clean Energy

**SDG 8** Decent Work and Economic Growth

**SDG 9** Industry, Innovation and Infrastructure

**SDG 10** Reducing Inequality

**SDG 11** Sustainable Cities and Communities

**SDG 12** Responsible Consumption and Production

**SDG 13** Climate Action

**SDG 14** Life Below Water

**SDG 15** Life On Land

**SDG 16** Peace, Justice, and Strong Institutions

**SDG 17** Partnerships for the Goals

c. Do not know

- *Indicators used for monitoring SDG progress:*

a. Same

b. Regional/provincial/local indicators

c. Do not know

**7. What is your overall impression about SDG progress and implementation in Indonesia?**

Major progress:

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Major challenges:

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**PROVINCIAL/WEST JAVA CONTEXT**

**8. Does Indonesia provide guidance for implementing the SDGs at the provincial level? Which agencies (national or provincial) are involved in SDG coordination in West Java?**

- a. Yes
- b. No
- c. Do not know

Any additional information:

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**9. Are local stakeholders involved in promoting SDGs in West Java?**

- a. Yes
- b. No

If yes, can you name some?

- a. NGO / Civil society
- b. Academic / Think tank
- c. Media
- d. Others

**10. What are the major economic sectors in West Java?**

A. Major agriculture sectors: (Choose one)

- a. Crops
- b. Horticultural plants
- c. Plantation
- d. Other (Please specify)

B. Major industrial sectors:

- a. Coal and/or oil and gas refining
- b. Food and beverage
- c. Tobacco processing

- d. Textiles and apparel
- e. Leather industry, leather goods and footwear
- f. Manufacture of wood, wood and cork products and woven materials from bamboo, rattan and the like
- g. Paper industry, printing and reproduction of printed matter
- h. Chemical, pharmaceutical and traditional medicine
- i. Rubber and plastics products
- j. Non-metallic mineral goods
- k. Basic metals
- l. Metal, computer, electronic, optical and electrical equipment
- m. Machinery and equipment
- n. Transportation equipment
- o. Furniture
- p. Other (Please specify)

C. Major service sectors:

- a. Electricity and gas procurement
- b. Water supply, waste management and water recycling
- c. Construction
- d. Wholesale and retail trade
- e. Car and motorcycle repair
- f. Transportation and warehousing
- g. Provision of accommodation and food and beverages
- h. Information and communication
- i. Financial services and insurance
- j. Real estate
- k. Education
- l. Health services and social activities
- m. Other (Please specify)

D. Other sectors:

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**11. What are the major challenges for economic development in West Java?**

Major challenges and the reasons:

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**12. What are the major challenges for social development in West Java?**

Major challenges and the reasons:

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**13. What are the major environmental problems in West Java?**

Major pollution-related issues and the drivers (e.g., sectors):

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Major resource-use related issues and the drivers (e.g., sectors):

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Major issues related to the conservation of the natural environment and the drivers (e.g., sectors):

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Other issues and the drivers (e.g., sectors):

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**14. Do you think climate change is a serious threat to Indonesia in general and West Java in particular? Please elaborate if possible.**


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**15. Do you think climate mitigation is important for West Java? Which areas in West Java have the largest potential for reducing greenhouse gases (GHG)?**


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**16. What are some of the key issues and challenges facing West Java, particularly in the context of the SDGs and climate change? Please note the following:**

- You can choose as many entries as necessary from the “Issues/Challenges” column (column 1) in the Table below.
- You can add issues that you think are relevant but not included in the table.
- Please write down the SDG number (1-17) in the “Relevant SDG” column (column 2). You can choose more than one SDG if you think multiple SDGs are relevant to the issue you choose or added. The “List of SDGs” column (column 4) provides the short names of the 17 SDGs for your reference.
- In the “Comments” column (column 3) you can add your comments or rationale related to the issue/challenge that you selected or added.

Issue/challenge	Relevant SDG (1–17)	Comments (e.g., the issue, the drivers to the issue and the impacts from the issue)	List of the 17 SDGs
E.g., Poverty	SDG 1	Despite progress, roughly 10% of people in West Java still live below the international poverty line (1.90 USD/day)	SDG 1 No Poverty  SDG 2 Zero Hunger  SDG 3 Good Health and Well-being  SDG 4 Quality Education  SDG 5 Gender Equality  SDG 6 Clean Water and Sanitation  SDG 7 Affordable and Clean Energy  SDG 8 Decent Work and Economic Growth  SDG 9 Industry, Innovation and Infrastructure  SDG 10 Reducing Inequality
Income inequality			
Social inequality			
Unemployment			
Environmental degradation			
Urbanisation			
Climate change			
Pollution (air/water etc.)			
Inadequate infrastructure			
Waste management			
Gender inequality			
Economic growth and stability			
Access to water, sanitation and hygiene			
Access to energy			
Access to education			
Access to health services			
Disaster preparedness			
Food security			

State of the rule of law			SDG 11 Sustainable Cities and Communities
Governance situation			
Relations with the central government			SDG 12 Responsible Consumption and Production
Enabling environment for business opportunities			
State of agriculture activities			SDG 13 Climate Action
Biodiversity			
Water and land ecosystems			SDG 14 Life Below Water
Deforestation			
Mountain ecosystems			SDG 15 Life On Land
Corruption			
Other issues not listed above			SDG 16 Peace, Justice, and Strong Institutions
			SDG 17 Partnerships for the Goals.

**17. What is your overall impression of the SDG progress and implementation in West Java?**

Major progress:

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Major challenges:

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The Institute for Global Environmental Strategies (IGES) was established in March 1998 under an initiative of the Japanese government and with the support of Kanagawa Prefecture based on the “Charter for the Establishment of the Institute for Global Environmental Strategies”. The aim of the Institute is to achieve a new paradigm for civilization and conduct innovative policy development and strategic research for environmental measures, reflecting the results of research into political decisions for realising sustainable development both in the Asia-Pacific region and globally. IGES made the transition to a Public Interest Incorporated Foundation in April 2012.

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