

## Four Questions

- What is an integrated approach?
- How can an integrated approach help implement the SDGs?
- What is need to operationalize an integrated approach?
- Where are there gaps-and how can these be closed?


## What is an integrated approach?

- Many of the SDGs and their targets are synergistic.
- For instance, if you use resources more sustainably (SDG 12), then you are likely to conserve energy (SDG 7) and mitigate climate change (SDG 11).
- However, there are also SDGs and targets with trade-offs.
- For instance, if you invest in coastal infrastructure (SDG 9), you could also make life on land (SDG 14) and life below water (SDG 15) less sustainable.
- An integrated approach actively seeks to maximize synergies and minimize trade-offs between goals and targets in policy and practice.



## Why an integrated approach?: Reason 2

- Integration can ensure..
- balance across the three dimensions of sustainable development;
- representation of development priorities; and
- consistency with the principles of the 2030 development agenda.



## Why an integrated approach?: Reason 3

Japan: The Case of Target 14.5


- An integrated approach can help identify leverage points
- This can save time and money
- Saving resources is particularly important given current budgeting for the SDGs

Source: Snapshots taken from IGES SDG Interlinkages and Data Visualisation Web Tool (https://sdginterlinkages.iges.jp/).

There are actually several kinds of integrated approaches that have informed policy recently

## NEXUS



## Urban Systems



Global Environmental Issues

Climate Chang Mitigation Targets

Co-benefits

## Pollution in Bandung, Indonesia



## Estimating Co-benefits in Bandung, Indonesia



Source: Nakano, 2017

## Estimating Co-benefits in Bandung, Indonesia

| Species | Base case <br> Emission (Gg/yr) | Eco-driving |  | Pedestrian Walkways |  | Car Free Days |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Emission (Gg/yr) | Reduction (\%) | Emission ( $\mathrm{Gg} / \mathrm{yr}$ ) | Reduction (\%) | Emission (Gg/yr) | Reduction (\%) |
| CO | 173.14 | 145.33 | $16.06 \%$ | 171.02 | 1.22\% | 168.68 | 2.58\% |
| VOC | 34.00 | 32.87 | $3.31 \%$ | 33.57 | 1.25\% | 33.49 | 1.48\% |
| $\mathrm{NO}_{x}$ | 20.59 | 16.30 | $20.85 \%$ | 20.42 | 0.81\% | 20.10 | 2.35\% |
| $\mathrm{SO}_{2}$ | 0.33 | 0.30 | $10.71 \%$ | 0.33 | 1.62\% | 0.33 | 1.57\% |
| PMM | 2.73 | 2.40 | 12.139 | 2.73 | 0.24\% | 2.73 | -_0.23\% |
| BC | 0.88 | 0.76 | $12.91 \%$ | 0.88 | 0.16\% | 0.88 | 0.17\% |
| OC | 1.36 | 1.21 | $11.06 \%$ | 1.36 | 0.34\% | 1.36 | 0.32\% |
| $\mathrm{Cl}_{2}$ | 3315 | 2966 | -10.540 | 3281 | 1.04\% | 3271 | -- $1.34 \%^{1}$ |
| $\mathrm{N}_{2} \mathrm{O}$ | 0.07 | 0.06 | $11.00 \%$ | 0.07 | 0.83\% | 0.07 | 0.74\% |
| $\mathrm{CH}_{4}$ | 5.02 | 4.79 | $4.70 \%$ | 4.97 | 1.19\% | 4.92 | 1.99\% |
| Air toxics | 5.13 | 5.02 | 2.06\% | 5.08 | 1.00\% | 5.08 | 1.04\% |

Source: AIT, ITB, IGES 2016

Eco-Driving in Bandung, Indonesia


## Challenges

- Lack of long-term incentives
- Lack of dialogue with periurban and rural areas, as well as neighbouring cities
- Lack of dialogue with provincial and national governments

Source: Nakano, 2017

## SDG 11 Indicators of Interest

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Indicators
11.1.1
Proportion of urban population living in slums, informal settlements or inadequate housing
11.2.1
Proportion of population that has convenient access to public transport, by sex, age and persons with
disabilities
11.3.2
Proportion of cities with a direct participation structure of civil society in urban planning and management
that operate regularly and democratically
11.6.1
Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid
waste generated, by cities
11.6.2
Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)
11.7.1
Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons
with disabilities
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## Selected Cities in Japan and the Philippines



## The Case of the Philippines

## Good Fair Limited



|  |  | Marikina | Quezon City | Cagayan de Oro | Batangas | Puerto Princesa | \|loilo | Cebu | S.Fernand o La Union | GenSan | Catbaloga n |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Proportion of urban population living in slums, informal settlements or inadequate housing | Relevant Data | X |  |  | X | $\chi^{\text {my }}$ | X | X | X | X |  |
|  | Relevant Proxies | X | X | X | X | X | X | X | X | X | X |
|  | Weak Proxies |  |  |  |  |  |  |  |  |  |  |
| Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities | Relevant Data |  |  |  |  |  |  |  |  |  |  |
|  | Relevant Proxies |  |  | X |  |  |  |  | X | X |  |
|  | Weak Proxies | X | X |  | X | X | X | X |  |  | X |
| Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically | Relevant Data | X | X | X | X | X | X | X | X | X | X |
|  | Relevant Proxies |  |  |  |  |  |  |  |  |  |  |
|  | Weak Proxies |  |  |  |  |  |  |  |  |  |  |
| Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities | Relevant Data | X |  | X | X | X |  | X | X | X |  |
|  | Relevant Proxies | X |  | X | X | X |  | X | X | X |  |
|  | Weak Proxies |  |  |  |  |  |  |  |  |  |  |
| Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted) | Relevant Data |  |  | $\chi^{\text {my }}$ | X | * |  |  | * |  |  |
|  | Relevant Proxies |  | X |  | X |  |  |  |  |  |  |
|  | Weak Proxies | X |  |  |  |  | X | X |  | X |  |
| Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities | Relevant Data |  |  |  |  |  |  |  |  |  |  |
|  | Relevant Proxies | X | X |  |  |  | X | X |  | X |  |
|  | Weak Proxies |  |  | X | X | X |  |  | X |  |  |

## The Case of Japan

|  |  | $\begin{aligned} & \text { Sapp } \\ & \text { oro } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Send } \\ & \text { ai } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Toky } \\ & \text { o23 } \\ & \hline \end{aligned}$ | Yoko hama | $\begin{array}{\|l} \text { Niiga } \\ \text { ta } \\ \hline \end{array}$ | $\begin{aligned} & \text { Nago } \\ & \text { ya } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Osak } \\ & \text { a } \\ & \hline \end{aligned}$ | Kobe | Hiros hima | Fuku oka | Hachi oji | Hako <br> date | Oota | Kako gawa | Ise | Fukuc hiya ma | Mishi ma | $\begin{aligned} & \text { Noog } \\ & \text { ata } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Proportion of urban population living in slums, informal settlements or inadequate housing by sex, age and persons with disabilities | Relevant Data | $X^{\text {my }}$ | $X^{\text {my }}$ | $\mathrm{X}^{m y}$ | $X^{\text {my }}$ | $X^{\text {my }}$ | $X^{\text {my }}$ | $X^{\text {my }}$ | $X^{\text {my }}$ | Xmy | $X^{m y}$ |  |  |  |  |  |  |  |  |
|  | Relevant Proxies | X ${ }^{\text {my }}$ | $X^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $X^{\text {my }}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ |  |  |  |  |  |  |  |  |
|  | Weak Proxies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Proportion of population that has convenient and safe access to public transport | Relevant Data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Relevant Proxies | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
|  | Weak Proxies | $\mathrm{X}^{\mathrm{my}}$ | $X^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $X^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\text {my }}$ | $X^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $X^{\text {my }}$ |
| Structured urban planning with civil society participation | Relevant Data | $X^{\text {my }}$ | $X^{\text {my }}$ | $X^{\text {my }}$ | X ${ }^{\text {my }}$ | $X^{\text {my }}$ | $\chi^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $X^{\text {mmy }}$ | $X^{m y}$ | $X^{m y}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\chi^{\text {my }}$ |  | $\chi^{\text {my }}$ | $X^{\text {my }}$ |  |
|  | Relevant Proxies | X | X | X | X | X | X |  | X | X | X |  |  |  |  |  |  |  |  |
|  | Weak Proxies | X |  | X | X | X | X | X | X | X | X |  |  |  |  |  |  |  |  |
| Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities | Relevant Data | $\mathrm{X}^{\mathrm{my}}$ | $X^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\text {my }}$ | $\mathrm{X}^{\mathrm{my}}$ | $\mathrm{X}^{\mathrm{my}}$ | $x^{m y}$ |
|  | Relevant Proxies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Weak Proxies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities, and city planning that designates this | Relevant Data | X | X | X | X | X | X | X | X | X | X |  |  |  |  |  |  |  |  |
|  | Relevant Proxies |  |  | X |  |  |  | X |  |  |  |  |  |  |  | X |  |  |  |
|  | Weak Proxies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities | Relevant Data |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Relevant Proxies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Weak Proxies | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

## Summary

- An integrated approach involves actively seeking synergies and avoiding trade-offs across SDGs and targets in policy and practice
- Such an approach can make implementing the SDGs more manageable, cost-effective, and representative of diverse interests
- There are already a number of different approaches to integration; these range from food-water-energy nexus to urban systems to co-benefits
- Some of the chief challenges to implementing an integrated approach in cities are related to data
- A concerted effort will be needed to close data gaps in developing country cities and small cities everywhere

