LONDON SUSTAINABLE DEVELOPMENT COMMISSION

The role of the UN Sustainable Development Goals in London's green and fair recovery

Insights paper

London Sustainable Development Commission

July 2020

About the authors

The London Sustainable Development Commission (LSDC) was established in 2002 to provide independent advice to the Mayor of London on ways to make London a sustainable, world-class city. The Commission is an independent body, challenging policymakers to promote a better quality of life for all Londoners, both now and in the future, whilst also considering London's wider global impacts. The Commission is made up of individual experts from the economic, social, environmental and London governance sectors. Commissioners give their time voluntarily, promoting sustainable development, embedding sustainability into London-wide strategies, and helping make sustainability a meaningful and understandable concept for all Londoners.

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Foreword

The London Sustainable Development Commission (LSDC) was established in 2002 to advise the Mayor on making London a global leader on sustainability. Since 2004 we have reported on the city's sustainability progress through a series of Quality of Life indicator reports. We have transitioned from using these indicators to assessing London's performance against the UN Sustainable Development Goals (SDGs) – a set of targets agreed by global leaders that aim for transformative social, economic and environmental progress by 2030. We will publish a report on London's performance against the SDGs in Autumn 2020.

The COVID-19 pandemic is the greatest public health and socio-economic crisis of our time. It has highlighted London's pre-existing inequalities – whilst making them worse. These inequalities have been further exposed by the Black Lives Matter movement and others, amid public calls to tackle ongoing systemic injustices whilst reckoning with their historical contexts. Meanwhile, the reduced traffic during the lockdown caused a drop in air pollution and a return of wildlife to many cities. This has sparked renewed debate over how we might in future build cities that work for *all* their citizens, as well as the planet.

Our political leaders have rightly recognised the public clamour for a recovery that doesn't simply re-establish the old status quo that has failed so many. Instead, we must build back a society with a new vision to become kinder, more tolerant, more just, and more environmentally sustainable.

The LSDC believes the SDGs have a crucial role to play in London's green and fair recovery – which is the theme of our Insights Paper.

The SDGs provide a holistic framework that can help decision-makers take joined-up approaches to a wide range of issues. Our paper shows how the SDGs can help better outcomes for employment, health, climate and inequalities, by using these themes as a lens to examine evidence from three case studies where we make recommendations for action: housing retrofits; access to urban green space; and finance. We draw on evidence from the LSDC's SDGs indicator set (mentioned above), as well as evidence that has emerged since the pandemic.

This insights paper will be the first of a LSDC series on how London can become a fairer, greener and more resilient city – throughout the recovery process and beyond.

Dr Paul Toyne
Chair of LSDC subgroup on the SDGs

July 2020

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The LSDC's recommendations for a sustainable recovery

1. **London needs more affordable, high quality and energy-efficient homes**: The UK government should devolve fiscal and regulatory powers, including for ECO spending[71], so London can scale up its programmes to retrofit existing homes.
2. **Enhance urban green spaces:** Government should ensure sufficient green space funding. The Mayor and boroughs should make permanent the 'Streetspace' interventions (which expanded walking and cycling infrastructure as London transitioned out of lockdown), to form a network of greener public realm.
3. **Invest in the green, ethical business of the future:** Government should ensure any stimulus packages are accompanied by binding and measurable environmental targets.
4. **We need a Future Finance Facility to unlock green investment:** The Mayor should continue to work in partnership with stakeholders to leverage private finance.
5. **The SDGS should support London's recovery planning:** Decision-makers should use the SDGs framework (adapted to London) to take integrated approaches, use indicator data in evaluations, and ensure sustainability issues are factored into all decision-making.

1. Introduction and our approach

The SDGs and cities

The UN Sustainable Development Goals (SDGs) were agreed by global leaders in 2015 as part of 'Agenda 2030' to create transformative social, economic and environmental improvements by 2030. They cover a range of issues: jobs and the economy, healthcare, housing, the environment and more. Their overarching focus is on 'No one left behind': tackling inequality and helping the most vulnerable first.

Initially developed for national governments, the SDGs have since become a unifying global language for cities, businesses and others to plan and monitor their progress on sustainable development. Approaches such as Kate Raworth's 'Doughnut Economics' model, and C40 Cities' forthcoming Thriving Cities tool, are sparking renewed interest among the public and city leaders in how the SDGs can be used practically at a city level to help with better policy making[1, 2].

The London Sustainable Development Commission (LSDC) believes the SDGs provide a crucial way for cities to develop more integrated, systems-based approaches to the complex, interconnected challenges we face. The SDGs are supported by a set of indicators to monitor performance and offer a 'co-benefits' approach: helping decision-makers identify and deliver fairer, greener, prosperous cities - instead of trading individual issues off against one another.

The SDGs in London

The LSDC is now working to understand London's progress against the SDGs. This work evolved out of our previous Quality of Life reports, which had measured sustainability in London since 2004[3]. We have created a localised indicator set to monitor London's progress on the SDGs, believed to be the most comprehensive of any world city. This was developed in partnership with experts from UK Stakeholders for Sustainable Development and Newcastle University, with input from policy and data specialists from the Office for National Statistics, the Greater London Authority and the Environment Agency. We have analysed this data and will publish a report with our detailed findings in late Autumn 2020.

The SDGs and the COVID-19 recovery

However, given the immediate response required to COVID-19, we have written this paper to show how using the SDG framework can help deliver a sustainable recovery: helping policy-making to benefit all Londoners, supporting the SDGs imperative to "no one left behind" and so promote equality. The LSDC's view is shared by 150+ leaders of major businesses and others, who wrote to the Prime Minister in June 2020 advocating that the SDGs form the basis of a sustainable recovery[4].

The existential threat posed by the climate and ecological emergencies have not disappeared, even as global attention has rightly focused on COVID-19 in recent months. Meanwhile, the COVID-19 pandemic, and the social and economic effects of the lockdown, have shone a light on existing inequalities and vulnerabilities in London – whilst making them worse.

BAME[5] communities have been hit notoriously hard[6]. People living in crowded, poor quality housing, with limited access to outdoor / green space, and the homeless, have all had a far more difficult experience of lockdown than other groups. The elderly and those with caring responsibilities have been particularly affected by reduced access to basic services. Those in low-paid, insecure jobs, and whose work requires a physical presence (so cannot work from home), have struggled far more financially, and

have been placed at greater risk of infection. Women are disproportionately affected by these factors and have also been at greater risk of domestic violence during the lockdown[7]. Loss of work has driven many to the breadline, with London food banks seeing a 68% rise in demand from February to March 2020[8].

It is therefore crucial that the economic recovery does not simply rebuild existing systems that drive inequality and environmental degradation. Instead, we must rebuild in a way that holistically creates a greener, fairer and more resilient society.

COVID-19 is a global challenge, needing a global response[9]. As a major world city, London can use the SDGs to engage with the international dimension of this situation, maintaining our outward-looking stance, and demonstrating leadership on equality and the environment on the global stage.

Our approach

This paper considers three recovery actions London could take that would be mutually beneficial:

- improving housing stock through environmental improvements;
- improving access to, and enhancing green spaces; and
- establishing a London focused finance facility to coordinate future infrastructure investments that fund the transition to a zero carbon and circular economy[10].

These themes were selected because their co-benefits were identified in the LSDC's forthcoming report on the SDGs indicator data and have been particularly thrown into focus by COVID-19.

These three issues are seen through the lens of the following criteria for a successful recovery, which will help make London a regenerative and more resilient city[11]:

- tackling inequalities;
- supporting job-creation and the economy;
- tackling the climate and ecological emergencies; and
- improving public health.

We analyse these issues using the SDGs indicator data, relevant sections of which are tabulated in an annex to this paper. The SDGs indicators are taken from a range of existing sources – these are cited in the annex, rather than separately throughout the paper. We have combined this analysis with fresh evidence relating to the impacts of the COVID-19 situation.

The UN Sustainable Development Goals[12]:

2. Improving London's housing

London needs better quality, affordable housing. Retrofitting existing homes would deliver the following co-benefits: better health and wellbeing for occupiers; lower utility bills; reduced carbon emissions and climate resilience; job creation supporting the economic recovery; and reducing inequalities which have been felt more acutely during the pandemic.

The social, environmental and economic co-benefits of retrofits

Retrofit[13] programmes that deliver high-quality, environmentally friendly homes, are ideal 'shovel-ready' construction projects needed to kick-start the economy. Despite successful programmes such as London's Retrofit Accelerator programmes, and the UK Green Building Council's new Accelerator Cities programme (in partnership with the GLA and others) there is a need for a step change in the activity associated with retrofit in London.

Our analysis of the London SDG indicators reveals the wide societal and environmental benefits that can be achieved if we invest in delivering this for London. These are set out below.

There are several other areas beside domestic retrofits where the SDGs can demonstrate co-benefits to enhance London's built environment. These include:

- retrofitting commercial properties;
- investing in low-carbon decentralised energy and heating;
- precision-manufactured housing construction methods that cut site waste, noise and pollution, whilst delivering homes of high quality, thermal and water efficiency and indoor air quality; and
- the role of city planning in maintaining thriving local high streets and social infrastructure, even as central London becomes temporarily depopulated by social distancing measures.

However, there is insufficient space in this report to address these issues fully, and we will explore opportunities to do so in future publications.

Job creation and economic growth

Research has shown that home retrofits alone could support 108,000 net new jobs per year by 2030 across the UK (mainly construction jobs, but also indirect job creation)[14, 15], employing skills that will enable a just transition. To put this in context, London's entire construction sector currently employs around 300,000 people, around 5% of London's workforce[16]. This is especially crucial at a time when the Bank of England foresees a recession and mass unemployment[17].

Retrofits also have a large 'economic multiplier' effect: every percentage point of GDP invested in this way is expected to increase UK GDP by 2 - 3%[18]. This is explored further in the Finance section below.

Housing quality is improving, but there's more to do

Our analysis of SDG indicator data shows London's housing quality has improved markedly over recent years: the proportion of London homes falling below the UK Government's 'Decent Homes Standard' dropped from 37% in 2006 to 17% in 2017. (The Standard[19] stipulates a reasonable quality of repair, facilities and thermal comfort.) However, 570,000 homes failed to meet the standard, disproportionately in the private rented sector. Too many people live in cramped accommodation with too little space for living (let alone working from home), with no outdoor space. This has been exacerbated by COVID-19 forcing people to spend more time indoors, including working from home.

Poor-quality housing makes people ill

The London Health Inequalities strategy highlights that poor housing causes health problems including physical injury, poor mental health, and illness related to cold and damp[20]. Cold homes alone cost the NHS £1.4 bn each year[21]. Furthermore, housing issues are a common cause of poor mental health – particularly poor housing quality, affordability, and insecure tenancy – with low-income households and the BAME community disproportionately affected[22]. Around 1,000 Londoners die directly due to cold homes each year[23, 24].

A strong correlation between overcrowding and COVID-19 deaths has been identified. The 10 areas with the most COVID-19 cases per capita in the UK, and the 10 areas most affected by overcrowding, are all London boroughs, with Newham and Brent hit the hardest[25]. Overcrowding disproportionately affects the BAME community, low-income households and renters[26]. BAME communities have also been disproportionately affected by COVID-19[27], although analysis of the causes has not yet been published. Reducing overcrowding alone won't address the imbalance: more good quality, affordable housing is required too[28].

Housing is getting less affordable

Our analysis of SDG indicators has shown that housing affordability has worsened over the last decade, with median housing costs accounting for 28% of average gross household income in 2016/17 (rising to 37% in the private rented sector)[29]. Housing costs are also a significant factor in poverty – 28% of Londoners live in poverty (defined as incomes below 60% of the UK median), but only 15% would be in poverty if housing costs were taken out of the equation.

Fuel poverty may be worsened by the impacts of COVID-19

Our analysis of SDG indicators shows that fuel poverty in London has steadily risen since 2003, even as it has steadily fallen across England as a whole[30]. 11.4% of London households suffered from fuel poverty[31] in 2018 - a slight drop from 2017, but slightly higher than the England average of 10.3%[32]. However, fuel poverty varies widely by borough: from 8.4% of households in Sutton, to 16.1% in Newham – the second highest rate of fuel poverty in England. 10 of England's 50 most fuel-poor areas are in London.

Households particularly likely to suffer from fuel poverty include those in the private rented sector; those with poor energy efficiency; and BAME households (which are twice as likely to be fuel-poor as white ones), with older people and young children particularly vulnerable[33]. The Energy and Climate Intelligence Unit's Lockdown in Leaky Homes report[34] supports this view, suggesting that if the coronavirus lockdown continued or was re-imposed during winter months, families in cold, leaky homes would face heating bills elevated on average to £124 per month, compared with £76 per month for those in well-insulated homes. It also noted the correlation between fuel poverty and energy inefficient homes.

Environmental benefits of retrofits

More thermally efficient homes save energy on heating and cooling, hence cutting carbon emissions. If London is to contribute to the government's target to achieve net-zero carbon[35] by 2050, we must retrofit nearly all of London's 3.59 million homes[36, 37]: around 13 every hour between now and 2050. Well insulated homes are more resilient to climate change, dealing better with extreme heat. This is also a healthcare issue, with elderly people particularly vulnerable to spikes in temperature. Retrofits can also achieve better indoor air quality through improved ventilation, and better water efficiency[38].

3. Urban green space

Urban green space in London has huge value for people's physical and mental health, creating £950m savings for the NHS; it supports community cohesion; and boosts climate resilience whilst supporting local wildlife. Access to green space during COVID-19 has been critical, but there is insufficient and unequal access to public green space. This can be addressed by enhancing local amenity spaces, improving the connectivity between existing parks and greening parts of the built environment and wider public realm to augment the parks network. Participatory design methods can build community ownership.

Green space has value to health and wellbeing

Parks have been hugely important during the lockdown, and their use has increased 160%[39]. 62% of Londoners think protecting and enhancing green spaces should be a higher priority after the lockdown.[40]

London's greenspace has significant wellbeing benefits, and was estimated in 2017 to avoid healthcare costs of £952 million per year[41]. This comprises £370m per year saved on mental health costs, and £582m physical health savings. The latter is because exercise combats disease risk – which is crucial, as analysis of the SDGs indicators revealed 37.9% of Year 6 children in London are obese. Indeed, the government allowed people to use parks despite other lockdown restrictions, in recognition of these benefits.

Given that green space is one of a number of factors that contributes to Londoners' wellbeing, it is also relevant that over 80% of the UK public want the government to prioritise wellbeing over GDP during the pandemic, and 60% want this to continue after it has subsided[42].

Unequal access to green space

Our SDGs indicator analysis revealed that 48-51% of London can be considered green and blue. However, only 18% of London is officially publicly accessible green space - much of the rest includes private land such as gardens, and land that is technically private despite some public access, such as nature reserves[43]. There is inequality over who has access to the best quality public open space – large, high quality parks are disproportionately located in wealthier neighbourhoods, partly because property values have increased in areas close to good quality parks, thus displacing those Londoners on lower incomes.

Only half of Londoners live within 400 metres of their nearest formally designated local open space (a public park of at least 2 hectares) – the maximum distance recommended by the London Plan[44]. (Though many households within such areas of deficiency do have access to smaller amenity green spaces, pocket parks or private gardens.) Those fortunate enough to have gardens have had a markedly different experience of being housebound than those without. Lower income and BAME households have been hit hardest – black people in England are four times less likely than white people to have no outdoor space at home[45]. 21% of London households have no garden, compared with 12% of Great Britain[ibid].

Enhancing green spaces where there is greatest need

The Mayor's £12 million Greener City Fund has already created or improved 175 hectares of green space in London. This includes wildflower meadows, community orchards and food-growing areas, community green spaces and school grounds, whilst funding 175,000 new trees[46]. In the new London Plan, policies on open space, urban greening and biodiversity have been strengthened to ensure that most new developments result in the greening of the urban environment.

However, more could be done to improve access to and the quality of green spaces that do exist in more deprived areas. There are many comparatively small plots of amenity green space, many of which are underutilised and of poor quality. If these were improved, they could play a much more valuable role as places for relaxation or play for local residents, especially children.

Well designed and used amenity green space (e. g. green areas around or within estates, pocket parks) could have

enormous benefit to people who have no access to private green/outdoor space and have not been able to use large parks either due to lockdown restrictions, lack of access or pre-existing constraints. The Mayor has already provided guidance on redesigning public spaces to make them more suitable for children[47]. This work could be expanded, or extended to other sections of the community. Increasing access in areas of most need could also involve temporary measures during times of crisis such as a pandemic, e.g. making private school playing fields and golf courses publicly accessible. The London Green Spaces Commission will publish their report later in 2020 making detailed recommendations on this issue.

Temporary interventions are currently being installed by Transport for London (TfL) and London's boroughs to expand walking and cycling provision as the capital emerges from lockdown, under the banner of the Mayor's 'Streetspace for London' programme[48]. The LSDC welcomes TfL's plans to review opportunities to make some of these permanent. One particular opportunity could be to create a network of greener civic spaces and links, especially where proposed Low Traffic Neighbourhoods[49] coincide with Areas of Deficiency in Open Space. This would be subject to feasibility and impact studies, and consultation with the public and boroughs.

Environmental benefits

Enhancing London's green spaces would have several environmental co-benefits. It would help ameliorate the urban heat island effect (both via tree shading[50] and the cooling effect of water evaporating from plants), enhancing the city's resilience to the effects of climate change. For this reason green and blue infrastructure should be integrated – e.g. by irrigation with waste water. Green and blue spaces improve sustainable urban drainage, reducing the risk of flooding. It would also enhance local air quality, whilst increasing bio-abundance[51] and biodiversity. The financial value of these combined environmental benefits – 'ecosystem services' – from London's trees alone is £132.7 million per year[52].

Participatory design

This work should be done in close collaboration with the communities who use the spaces. Local residents should be empowered (formally and informally) to take ownership of these plots – initially through helping to design them, and subsequently via volunteering roles in stewardship and light maintenance. This would ensure that spaces are not generic but tailored to their particular communities (including cultural needs and age ranges), designing in inclusion. The London Friends of Green Spaces Network has also advocated this approach.

Co-designing spaces cannot happen in a vacuum and requires capacity-building. Communities need to be given the training and skills to enable them to participate meaningfully in decision-making. They should also be paid for their involvement in co-design, as contributing time for free is a luxury that is not available to all – particularly low-income households, or those with significant caring responsibilities.

However, many of the environmental NGOs that would ordinarily work with

communities to carry out this type of work are under significant financial pressure due to the impacts of COVID-19, with some facing an existential threat. Investing in a green recovery should also include financial support for these NGOs to ensure their long-term viability and capacity to support community action.

Governance and funding

London's boroughs have primary responsibility for funding and maintaining green spaces. Despite the huge value parks provide, this is not always reflected in the investment they receive: the effects of austerity mean that budget-constrained authorities often struggle with upkeep, and there is a wide disparity in green space spending across boroughs.

A lack of centralised data management means that although an interactive green space map has been produced[53], which can be cross-referenced against Indices of Multiple Deprivation, data can be relatively difficult to access and process. For example, it is not currently possible to map small, low-quality public amenity spaces against areas of deficient access.

Although most (but not all) boroughs' spending on parks was published in a report to inform the work of the London Green Spaces Commission[54], each borough uses different definitions of what services count as 'green space'. A related challenge is that councils do not classify green spaces as 'assets' which means they do not receive the same level of attention and maintenance funding as infrastructure such as roads.

These issues make it challenging to build a consistent picture of spending on green spaces across the city and identify London-scale opportunities for improvements. These issues are flagged in the LSDC's forthcoming report on the SDGs and London – particularly in reference to SDG 15.B, which calls for investment in ecosystems. In 2011 the LSDC's Sowing the Seeds report proposed better partnership working across the capital to enhance green spaces – a recommendation that is still relevant today[55].

Investing in green spaces

Despite the social and financial benefits of better green spaces, it has been extremely challenging to attract the necessary public funding for improvements[56]. This is partly because the local authorities responsible have limited budgets, and partly because the public value of green spaces is not accounted for in their budgets. Meanwhile, it is not possible to attract private capital, as investors do not see a direct financial return on investment. The LSDC welcomes the government's £40m green space investment, via the Green Recovery Challenge Fund (albeit this is not new money) - however, details on the nature of this programme are not available at time of publication[57].

The London Green Spaces Commission will publish their report on green spaces later in 2020, which will make recommendations on the future funding of green spaces. The LSDC also believes it would be possible to capture the public value of green spaces, and channel private investment that can generate returns whilst unleashing the public benefits. However, this would require the creation of new financial institutions and innovative mechanisms. These opportunities are explored in the Finance section below.

4. Green finance

Investing in a greener economic recovery will create more jobs, productivity and growth than bailouts to polluting industries. We must invest in skills and jobs that promote equality and inclusivity and deliver a 'just transition'. New financial institutions and tools are required to achieve London's full potential, including a London Future Finance Initiative, and devolved fiscal and regulatory powers for London.

The need for a green and fair recovery

As noted above, the impact of COVID-19 is likely to cause a major recession and significant unemployment, whilst exacerbating existing inequalities. Meanwhile, climate and ecological emergencies have not gone away, and the policy and investment decisions we make now must lock in a zero-carbon, circular economy.

But a green and fair recovery is not just the right thing to do: it is the most economically advantageous approach, as explored below.

A fair recovery

Analysis of the SDGs data shows that 28% of Londoners live in poverty, compared with 22% of UK[58]. It also shows that London's GVA (productivity) has increased by 27% since 2010, we need to tackle huge inequality in how that increase was distributed. It also shows that although income inequality has dropped slightly over the last five years, February 2020 data shows that the top 10% earn 9.7 times more than the lowest 10%.

The SDGs indicator analysis also shows that whilst London's unemployment rates fell from 6.3% in 2015 to 4.3% in 2019, the proportion of zero-hours contracts rose from 2.1% to 2.5%, whilst 19.8% of workers in 2019 were paid below the London Living Wage. (However by May 2020, unemployment in London had risen to 5.1%; London was hit harder by job losses than the UK average, with women and 25-34 year-olds most affected[59].)

Vivid Economics analysed global bailouts in April 2020, and found that "In all cases, a significant portion of the bailout package will provide predominantly private benefits (e.g. to shareholders and executives) with no direct benefit to taxpayers."[60] The LSDC believe state interventions must prioritise communities – not redistribute taxpayers' money away from ordinary people, worsening inequality.

A jobs-centred recovery

As noted above, investing in 21st century jobs such as making our buildings, transport systems and neighbourhoods zero carbon can help the 'just transition', tackling inequality by boosting education and skills. Research shows that up to 40,000 new jobs (a net gain of 12,000) could be created in London by 2030 through circular economy initiatives alone[61], and 100,000 from domestic retrofits as noted above. A McKinsey report found that 77 jobs in renewable energy can be created for every 27 in fossil fuels, per $10 million invested – although based on US data, this is still likely to be relevant to London[62].

Green growth = stronger growth

Green investment creates more jobs and GDP growth than traditional (polluting) investment, based on analysing the success of 169 fiscal stimulus packages implemented after the 2008 financial crisis[63].

This view was supported by 231 senior economists from banks and government,

surveyed in the same research[64]. They propose the following key policies, which in addition to the community and environmental benefits outlined above, have the following economic benefits:

- Building efficiency retrofits - especially good in the short-term, as pre-existing retrofit programmes can be rapidly scaled up to create 'shovel ready' projects.
- Clean physical infrastructure projects and R&D – these have good medium to long-term benefits.
- Investing in natural capital (i.e. green spaces) – especially benefits local economies, as it is labour intensive but cannot be delivered offshore and can also be done socially-distanced during the pandemic[65].
- Investment in education and training – this unlocks future jobs and can help tackle inequality.

The Government's announcement on 8th July 2020 of £3 billion investment in green infrastructure and jobs is a welcome first step[66]. However, this must form part of a far more comprehensive plan to ensure the long-term greening of the UK's infrastructure and jobs market.

Green bailouts

Like many others, the LSDC believe corporate bailouts must have social and environmental lending criteria. For example, Air France-KLM are required to halve their carbon emissions by 2030 as a condition of their €11bn bailout by the French government[67]. It is welcome that the Department for Transport recently announced their 'Jet Zero Council' to decarbonise aviation[68].

But the Bank of England has given £1.8bn to airlines and £750m to oil companies with no green strings, according to data they published on 3rd June 2020[69] – despite the Bank's Governor writing the following day that we must invest in a green recovery to tackle the climate emergency[70]. National government must reverse this trend immediately, by making any stimulus / bailout packages conditional on verifiable plans to deliver climate targets and a just transition whilst considering avoiding locking in business models and infrastructure that cause catastrophic climate change.

Instead, we need to finance new green businesses. London is Europe's leading start-up capital, and we should capitalise on this to build the just transition – creating the high-quality jobs of the future, whilst delivering green products and services.

Financing the future

Although the Mayor has prioritised tackling the climate and ecological emergencies, he does not have the power or resources to do this alone. £1-1.7 trillion is needed between now and 2050 to deliver green, resilient, inclusive infrastructure. This dwarfs the public funds available, and the majority must come from private finance. There are three key challenges to channelling this investment:

- **Greening finance**: Vast sums are already being invested in London infrastructure. Ageing assets will continue to be replaced – whether with clean or dirty ones. We must ensure that capital is diverted away from business-as-usual development, and towards improving our natural environment; retrofitting existing building stock; and developing smart, clean and integrated energy and transport systems.
- **Financing green**: The City is already investing in green initiatives – however, this largely contributes to decarbonising other cities across the world rather than our own. This is perverse and will lead to London conceding a global leadership role unless reversed. It is also likely that the money going into London is primarily for new-build projects – which is positive, but only makes up a small proportion of London's built environment.
- **Seizing the opportunity**: The finance sector needs to rise to the challenge with innovative new business and investment models.

In order to address these challenges, the LSDC's report, Financing for a Future London[71], argues for three things:

- **Coordinate** better across London boroughs' fragmented capacity and funding;
- **Integrate** investment across fragmented ownership and infrastructure (e.g. energy, water, transport sectors);
- **Capture the value** of social, environmental and economic co-benefits that are not properly valued under the current financial system. (For example, this would help overcome the barriers to investing in green space mentioned above, where the huge untapped benefits of investment are not currently available as cash returns to those responsible for their upkeep. Here the SDGs framework should also be used to monitor the co-benefits of investment.)

London needs financial powers and institutions in order to act

In order to deliver these, new institutions and financial mechanisms are needed, requiring a partnership approach from the Mayor and a range of other London stakeholders.

London also requires devolved fiscal powers and responsibilities to enable public investment that can leverage large flows of private capital. For example, Londoners contribute £82 million to the governments' ECO[72] fund for energy efficiency (13% of the £640m total), but only get £27 million back (4%). This localised approach also reflects the UN's Roadmap for Localizing the SDGs[73], which calls for local action to implement the Goals, enabled by devolved regulatory and fiscal powers.

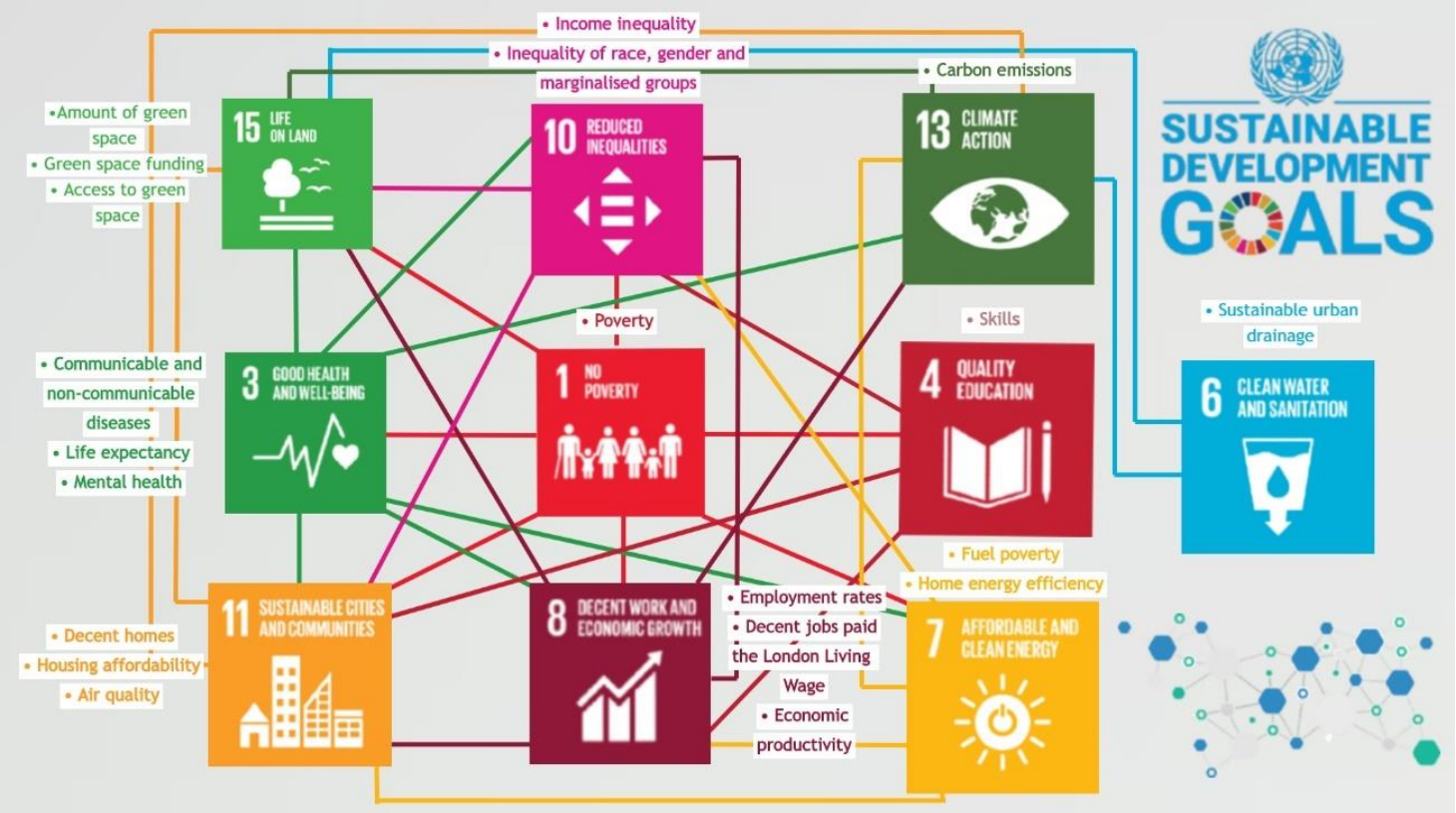
5. Conclusions on the role of the SDGs in London's sustainable recovery

The SDGs framework offers a holistic vision of a range of complex, interconnected challenges, whilst providing an indicator set to monitor performance. When tailored to London's local context, the SDGs can help decision-makers deliver myriad co-benefits when planning the COVID-19 recovery. Conversely, the SDGs can help find creative ways to avoid unwanted trade-offs (e.g. between providing more vs sustainable homes), by developing integrated solutions.

These benefits include stimulating job creation, economic growth and productivity; reduced inequalities, ensuring we leave no one behind; better physical and mental health and wellbeing; improved housing quality and tackling fuel poverty; whilst cutting carbon emissions and air pollution, enhancing green spaces and improving London's climate resilience. Beyond the three case studies in this paper, the SDGs offer insight into many more opportunities across a wide range of themes, from cutting resource consumption to creating more liveable cities.

The SDGs are internationally recognised. They could therefore play a role in helping London to collaborate with partners across the world to address the shared global challenges of our era – from the response to COVID-19, to equality and environmental issues, and beyond.

Illustration of connections between key issues raised in this paper in relation to the SDGs:



6. Recommendations

The evidence above shows how the SDGs can provide a holistic framework for a greener, fairer recovery – realising co-benefits from job creation, to health, to climate resilience, and ensuring we leave no one behind. The LSDC makes the following recommendations:

1. **London needs more affordable, high quality and energy-efficient homes**:
   Home retrofits can help create jobs, improve housing conditions and quality of life, combat fuel poverty and inequality, and enhance the environment. The UK government should devolve fiscal and regulatory powers, responsibilities and funding for fuel poverty, energy efficiency (including ECO spending[71]) and building standards, so London can lead the way on innovative retrofitting. These can then be scaled up to benefit the rest of the UK.

2. **Enhance urban green spaces**:
   We call on the government to ensure there is sufficient funding for green spaces, whilst supporting London's boroughs to facilitate community-led local solutions. We also call on the Mayor and boroughs to make permanent and extend the 'Streetspace' programme to form a network of greener public realm. These actions will enable the co-creation of better places, create decent local jobs, and enhance quality of life and equality.

3. **Invest in the green, ethical business of the future**:
   The government's immediate economic rescue plans should support the businesses of the future, securing a greener, fairer economy. It should not support polluting, unethical industries, and should be structured to benefit the whole economy – not just the wealthiest in society. Any financial support should be conditional on robust, monitored targets on the environmental and equality standards.

4. **We need a Future Finance Facility to unlock green investment**:
   London needs to leverage private sector investment in sustainable infrastructure. This will create the decent, resilient jobs of the future; boost skills; tackle inequality; improve physical and mental health; and drive a zero-carbon circular economy. The Mayor and a range of London stakeholders should continue their work to make this a reality in the medium to long-term.

5. **The SDGs should be adapted to city level to be used as a framework in London's COVID-19 recovery planning:**
   London should act on the SDGs holistically via policies and programmes. In order to do this, the SDGs should be adapted to create a locally applicable framework at the city level, which can be used to frame London's policy development and decision-making processes on COVID-19 recovery planning. The LSDC has already laid the groundwork for this, by creating a London-specific indicator set (due for publication in Autumn 2020), which can help identify strengths, gaps and opportunities. Cross-cutting sustainability representation should also be on decision-making boards.

   This approach would unlock the numerous co-benefits available from creating a London that is fairer and inclusive; greener; resilient; prosperous and regenerative. Integration also cuts the risk of false trade-offs: jobs vs the environment, health vs the economy, etc. It would also demonstrate London's global outlook and leadership position on sustainability.

Appendix

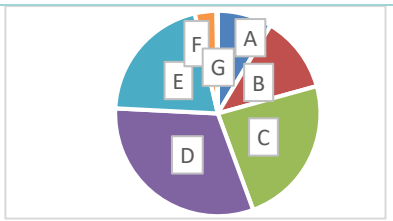
SDGs indicator data

The data tables presented below are reproduced from the set of 100+ indicators in the LSDC's forthcoming report on the SDGs. However, it should be noted that this only represents a small sample of the wider dataset, relevant to the three themes of this paper: housing, green space and finance.

The full datasets provide far more granularity, which can help highlights London's inequalities – however, only high-level data features in tables for reasons of space.

The SDGs indicator set is based on existing public data and was not generated or published by the LSDC. Sources are provided in the tables below. Because the data is drawn from a range of sources, it does not all span exactly the same period. The tables below therefore provide the year of data publication, the well as the year the data relates to, and the baseline year on which the trend arrow is based.

1. Housing

SDG target area	Performance (including year)	Trend (and baseline year)	Data publication date	Source
Poverty & inequality				
Absolute poverty	After Housing Costs: 25% Before Housing Costs: 13%	↓ (2010)	2020	GLA - Poverty in London
Relative poverty	After Housing Costs: 28% Before Housing Costs: 15%	↓ (2010)	2020	GLA - Poverty in London
Education & skills				
16-18 year olds not in education, employment or training (NEET)	4.8% (2019)	↓ (2017)	2019	HM Government - NEET and participation
Affordable and clean energy				
Fuel poverty	11.4% (2018)	↑ (2011)	2020	BEIS - Fuel Poverty Trends
Home energy efficiency (A – G)	 (2019)	↑ (2010)	2020	MHCLG – Domestic energy efficiency ratings, borough
Inequalities				
Income inequality: ratio between top and bottom 10%	After Housing Costs: 9.7 Before Housing Costs: 5.2 (2015/16 - 2017/18)	↓ (2008-09 – 2010/11)	2020	DWP / GLA – Income Inequality

Jobs paying below the London Living Wage	19.8% (2019)	↑ (2010)	2020	ONS / GLA – Employees earning below the LLW
Experienced discrimination in last year due to protected characteristic or social class	35% (2019)	-	2020	GLA – Social Integration Headline Measures
Feel they belong to their local area	73% (2019)	-	2020	GLA – Social Integration Headline Measures
Sustainable cities and communities				
Number of rough sleepers	8855 (2018/19)	↑ (2006-07)	2019	GLA – Housing in London, 2019
Homes below Decent Homes Standard	16.7% (2017)	↓ (2006)	2019	GLA – Housing in London, 2019
Housing affordability (median house price / average gross income)	28% (2019)	↓ (2010)	2019	GLA – Housing in London, 2019
Climate change				
London greenhouse gas emissions by sector	Domestic: 11.34 Mt CO2e Industrial/commercial 11.02 Mt CO2e Transport: 7.96 Mt CO2e (2017)	↓ (2010)	2019	GLA - LEGGI

2. Urban green space

SDG target area	Performance (including year)	Trend (and baseline year)	Data publication date	Source
Health and wellbeing				
Healthy life expectancy at birth	Males: 64.2 Females: 64.4 (2015-17)	↑ (2009-11)	2019	ONS – Health state life expectancy at birth
Gap in life expectancy between most and least deprived quintiles	Males: 6 years Females: 4.1 years (2015-17)	-	2019	ONS – Health state life expectancy at birth

Suicide rate per year per 100k population (rolling 3-year aggregate)	Males: 13.8 Females: 4.1 (2016-18)	↓ (2002-04)	2019	ONS – Suicides in England and Wales by local authority
Child obesity	37.9% (2016-17)	↑ (2009-10)	2018	NHS – National child measurement programme
Air pollution concentrations	PM10 – 13.9 (µg/m^3) PM2.5 – 8.9 (µg/m^3) NOx – 24.4 (µg/m^3)	↓ (2010) ↓ (2010) ↓ (2010)	2020	
Clean water and sanitation				
Reservoir capacity	91% - Lower Lee 95% - Lower Thames (2020)		2020	Thames Water / GLA – London Reservoir levels
Life on Land				
Green and blue coverage	48-51% (2019)	-	2019	GLA – Green space cover map
Sustainable cities and communities				
Designated as open public land	18% (2020)	-	2020	GIGL – Open spaces

3. Finance

SDG target area	Performance (including year)	Trend (and baseline year)	Data publication date	Source
Decent work and economic growth				
Economic productivity (Gross Value Added)	102.4 (2017)	↑ (2010)	2020	GLA – Evidence base for London's Local Industrial Strategy
Percentage in employment who are on a zero hours contract (not seasonally adjusted)	2.5% (2018)	↑ (2010)	2020	ONS / GLA – Workers on zero hours contracts
Unemployment rate	4.3% (quarter ending Dec 2019)	↓ (2010)	2020	ONS / GLA – Unemployment rate, region
Industry, infrastructure and innovation				
R&D expenditure:	£5.5 billion (2017)	-	2020	ONS – Gross domestic expenditure on R&D

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[11] Regenerative: this acknowledges that we need to halt, restore and regenerate both the health of population (susceptibility to disease and health and well-being as well as natural systems such as energy, water and resources in general. Resilience: able to cope with future shocks and stresses – be that health, natural systems like flooding or heat stress, or financial, or indeed a combination of several impacts
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