## GLOBAL GARDEN REPORT 2012

A closer look at urban green spaces around the globe





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## A passion for green spaces

The city's romantic appeal seems to draw more and more of us each year to these centers of culture and finance. Urbanization and the longing for the metropolitan pulse is a global mega-trend that is shaping our world as we speak, and will continue to do so for many years to come.

In 2008, mankind crossed a historic barrier when, for the first time in history, there were more people living in urban areas than in rural. In 1950, the earth was home to just two mega cities –cities boasting more than 10 million inhabitants. In 2000, the number was 18. As we look towards 2025, this number is projected to have grown to 29. Clearly, cities will play as vital a role in the future as they do today.

But, as more and more people move into the city, will nature follow?

In many cities around the world, the amount of green spaces is quickly shrinking; one example is London, where the equivalent of 2.5 Hyde Parks of greenery is paved over every year. This is an urgent problem that must be addressed.

If the history of city planning teaches us anything, it is that a city cannot continue to thrive without its green spaces. Neglect green spaces for too long, and soon people who are able will leave the city for the suburbs and countryside. That was the case in the 19th century, and it will be so for the 21st as well. In the long run, this is not sustainable. In order to maintain global allure and vibrancy therefore, cities must find a way to combine the best of urban life with the best of nature.

By commissioning this report from the research and consultancy firm Kairos Future, we at Husqvarna Group want to help raise awareness as to the importance of urban green spaces for our cities. As a company with a long history of working with green spaces, whether urban, rural, private or public, we believe it to be part of duty.

The last years have witnessed a growing interest in urban green spaces around the world, owing to the dedicated and passionate work of both individuals and NGOs, as well as companies and governmental agencies. It is our hope that this report will help to further this positive development. Let's continue to work together to keep our homes and cities green, today and tomorrow.

Hans Linnarson,
President and CEO of Husqvarna Group







## The report in five minutes

## COUNTRIES SURVEYED IN THIS YEAR'S REPORT

Australia China France Germany Poland Russia Sweden UK USA Urban green spaces – simply put, spaces in the city covered by vegetation or other soft and permeable surfaces – provide a remarkably broad set of services to cities. Although most of us have probably experienced the calming effect that a stroll through the park can bring about, or the aesthetic pleasure associated with walking down a tree-lined street on an autumn day, the benefits of urban green spaces for the city environment extend far beyond these soothing pleasures. As the research overview of this report shows, urban green spaces makes cities more competitive and brings broad environmental and economic benefits.

With so many beneficial attributes, it is hardly surprising that green spaces are a cherished feature of our urban environments. Nevertheless, as writers have pointed out, the story of nature and the city is 'both a love story and a battle'.1 As cities grow and land value rises, green spaces become tempting prospects for exploitation. Just as with many other public goods, the fact that the bottomline figures of parks and green spaces are hard to estimate tends to put them at a disadvantage vis-à-vis other types of investments: a fact which no doubts goes a long way in explaining their declining presence in many booming cities. A UK study shows that nine out of thirteen cities have experienced reductions in green spaces since 2001. This worrying trend must be addressed; cities around the globe cannot afford to underestimate the value and importance of green spaces.

With this report we have attempted to bring together the current state of knowledge on green spaces, in hopes of reversing their declining status. We have surveyed over 4500 urban dwellers in nine different countries in order to learn more about their views and

thoughts on the importance of urban green spaces in their daily life; in addition, we have interviewed experts in the field of urban planning in several countries.

**GLOBAL INTEREST IN URBAN GREEN SPACES** 

Key findings of the report include:

IS GROWING, BUT LONG-TERM PROSPECTS ARE UNCERTAIN. Around the world, interest in urban green spaces appears to be growing. Many cities are now experimenting with innovative ways of bringing urban greenery into the city, and nowhere more so than in emerging eco-cities. At the same time, green spaces are in widespread decline; for example, in Ho Chi Minh City, Vietnam more than 50% of urban green space areas have been lost to urban developments over the course of only 10 years. On a global level, our survey indicates that 31% of urban dwellers believe that the amount of green spaces in their city has declined over the last 10 years. Similarly, 38 % of urban dwellers believe that tomorrow's cities will contain fewer green

#### **URBAN GREENERY IS HIGHLY VALUED BY**

spaces than today's.

CITY DWELLERS. Although generally satisfied with the provisions of large and small city parks, 'green spaces' – trees, lawns, flowers and hedges – were still by far the most frequently mentioned feature that respondents in our survey would like to see more of in the city today (55%), ahead of more parking spaces (39%) and bicycle lanes (30%).

#### **GREEN SPACES HAVE MULTIFACETED**

**HEALTH BENEFITS.** Since important scientific publications in the 1980s, there is now broad agreement that interaction with the outdoors

provided by many urban green spaces has significant positive health effects. Not only does being outdoors help to reduce stress and anxiety, but it also encourages exercise. Findings of our survey support this. 'Feeling calm/relaxed' was the most frequently mentioned effect associated with parks and green spaces, and a majority or respondents believed that they would exercise more if they had access to a good green area near home or work.

GREEN SPACES MAKE NEIGHBORHOODS MORE ATTRACTIVE. Among city planners and real estate agents, the fact that proximity to attractive green spaces can raise property value is well known. In our study, 66% of respondents reported being willing to pay more for an apartment or house if it was located in an area with good green spaces, compared with, for instance, 39% willing to pay more for an area with good shopping and 39% for good cultural venues.

PARKS AND GREEN SPACES CONTRIBUTE TO THE COMMUNITY SPIRIT AND FURTHER SOCIAL INTEGRATION. As public places that everyone can enjoy regardless of background, parks and green spaces play an important societal role. In our survey, 89% of all respondents believed that having access to a good green area could have a positive effect on the neighborhood or community spirit.

#### GREEN SPACES HELP TO MAKE CITIES MORE

LIVABLE. On a macro level, urban green spaces provide a multifaceted set of environmental services: they help to combat urban heat island effects, reduce storm water runoff and improve air quality by absorbing airborne pollutants (the latter a service not to be underestimated,

as pollution was our survey's most frequently mentioned downside of living in an urban environment).

#### GREEN SPACES CAN GIVE CITIES A COM-PETITIVE EDGE IN THE FIGHT FOR GLOBAL

TALENT. Whether or not people are becoming more or less place dependent, the fight for the globally mobile creative class is intensifying. As a part of a city's offerings, the availability and quality of green spaces have increased in importance. In our survey, 36% of respondents chose 'quality of green areas' as a factor that would especially influence their choice of city, placing it fifth from the top in a list of 13 factors.

MAINTAINING GREEN SPACES IS A CRUCIAL CHALLENGE THAT MUST BE MET. Unlike many other areas of the city, green spaces require a more regular upkeep in order to benefit the community. This is one of the main reasons why cities facing tight budgets are hesitant to provide ample funding and support. However, finding a way of meeting this challenge is crucial, given the increasing importance of green spaces to the city's environment, as well as the well-documented detrimental effects of poor maintenance on green spaces in general. In our survey, lack of safety (56%), together with vandalism and poor maintenance (52%) were the most frequently mentioned reasons deterring respondents from visiting green spaces.



#### Five questions looking ahead

## 1. Will the idea of the greener city take hold?

We should never underestimate the importance of visions - they serve to remind us where we want to go and which future it is that we want to realize. For example, Vancouver has the ambition to be the greenest city in the world by 2020 through city planning, green building etc. However, in order to be truly useful, vision must at some point translate to action. Today there is a broad agreement that we want our future cities to be greener; concurrently, urban green spaces are rapidly disappearing in many cities, and are neglected in others. As such, a key question for the years to come is whether and to what extent the idea of the greener city will really take hold: are we ready to go from vision to action, or will the vision of the greener city remain fleetingly unattainable? For the future of urban green spaces, few questions are of greater importance.

### 2. What will tomorrow's maintenance look like?

If tomorrow's cities grow both in density and 'greenness', demand for new types of maintenance may emerge. If a city's landscape integrates more green space, as seen in the new eco-city models, tools and trades will have to adapt. Today, maintenance of parks and green spaces all too often result in excess noise and pollution, unsustainable in the compact, dense cities of the future. Will we see a greater frequency of urban gardening as profession, or will robotic solutions take care of the maintenance for us?

### 3. Will tomorrow's urban dweller have greener thumbs?

Urban farming and rurbanism – the combination of urban life with rural values – are two global trends challenging our idea of urbanites as estranged from nature and the countryside. With green roofs and vertical gardens on the

rise, the distinction between the urban and natural environment might grow to become even blurrier. In a not-too-distant future, are we as likely to find horticulturally-savvy people with green thumbs in the city as we are in the countryside?

## 4. Will green spaces be a new competitive edge?

In today's fast-paced knowledge economy, the scramble for global talent is in full force. With the rise of a new global class of highmobility knowledge workers, a city's ability to attract valuable human capital is arguably more important than ever. Already, many cities have begun using their proximity to nature and the quality of their of urban green spaces as a means of marketing their global attractiveness. This phenomenon has only just begun; in the years ahead, the quality of a city's green spaces may become as important an offering as a city's public transportation and cultural treasures are today.

## 5. Who will pay to maintain tomorrow's green spaces?

Urban green spaces are among the most important public spaces in the city: they provide a place to unwind in, to meet with friends and family, and to reconnect with nature. As mentioned, however, green spaces require more regular upkeep than other city areas, which is one of the main reasons why cities today are hesitant in creating them. One of the key questions ahead is therefore likely to be how best to provide increased funding for maintenance. Today, the public sector usually foots the bill; tomorrow, private sponsors hips and voluntary arrangements may become part of the solution as well.

## A global report on urban green spaces

Today there is much to suggest a surging global interest in urban green spaces. Fueled in equal parts by better understanding of their multifaceted benefits, growing environmental awareness, and a wave of new and innovative green design, the field of urban green spaces appears to have taken hold. To a large degree, this momentum can also be ascribed to a growing sense of urgency: with many major cities around the world set to expand in the years to come, there is a legitimate and pressing concern that urban green spaces may come under even more pressure from exploitation demands in the future.

In this year's Husqvarna Global Garden Report, we at Kairos Future have taken a closer look at the latest trends, developments and discussions currently taking place within in the field of urban green spaces. In assembling this report, we have consulted sources spanning the entire spectrum: from literature and research papers to micro-blogs and media outlets from all over the world, as well as experts' opinions.

The core of this report is comprised of two separate parts. In the first part we present

ten "Urban Green Space Insights", based on research and expert interviews. These insights are intended to function as accessible introductions to some of the most important facts and developments regarding urban green spaces today.

In the second part we present the results of a survey of over 4500 urban dwellers from nine different countries, in order to find out more about their perceptions and thoughts on green spaces in the city. Questions include everything from the perceived economic value of green spaces to current satisfaction and thoughts on future developments. These findings are not meant to provide an exhaustive view of the current green space situation in any country. Instead, they should be thought of as important indicators, stimuli for further discussion.

As cities grow, so will interest in urban green spaces. The full range of benefits they provide for cities and urban environments deserves wider recognition. Hopefully, this report can help to accomplish just that.

Let's begin the journey.





In the following pages, we invite you to journey with us around the globe to learn more about developments in the world of urban green spaces. The following insights are mainly from our research, but we have also included results from our global survey about urban green spaces. It is our belief that these ten insights provide a good indication of where the field is heading and why:

### Insight 1: We're moving to the cities

Why urban green spaces are bound to proliferate.

### Insight 2: The healthy color of green

How urban green spaces provide us with both physical and psychological benefits, and why these services are likely to become even more important in the future.

### Insight 3: Green makes for livable cities

How cities are increasingly using urban green spaces to create a more comfortable and environmentally-sound place to live.

### Insight 4: The nature of neighborhood satisfaction

Why green spaces are important for the attractiveness of a community and for our overall level of happiness.



### Insight 5: The pond is where we bond

How urban green spaces perform a vital function as 'third places' in the city.

## Insight 6: The green competitive edge

How urban green spaces might grow to become an increasingly important factor in the battle for global talent.

## Insight 7: Using existing buildings in new ways

Why, to an increasing extent, we are likely to see existing buildings go green.

### Insight 8: For bold new visions, look east

What new cities in Asia tell us about the future of urban green spaces.

## Insight 9: We're learning to think outside the green box

How today's cities are finding clever new ways of bringing nature to the city.

#### Insight 10: Maintenance is crucial

Why keeping green spaces in good condition is a vital priority.

## 1: We're moving to the cities

Why urban green spaces are bound to proliferate

300 million

dwellers that China is expected to have added by 2025.

We are expected to add over two billion new individuals to our planet; from roughly seven billion in 2012 to a projected nine billion in 2050. This population growth will not be evenly distributed: cities are the ones that will accommodate most of the expansion, with the global population in urban areas expected to rise from today's roughly 50% to almost 70% in 2050. By the middle of this century, there will be as many people living in cities as there are people living on the planet today. Clearly, urban areas are on the rise.

#### **DIFFERENT VANTAGE POINTS, SAME GOAL**

Although urban dwelling will increase globally, its rates will differ depending on location. Of the nearly two and a half billion new urbanites that the world is expected to boast in 2050, almost 90% will come from Asia and Africa.

In the west, where urbanization is set to continue at a more moderate pace, the main challenge will be how to expand what is an often already large city further. The age-old question of whether to expand cities inwards,

making them more compact, dense and "Europe"-like, or outwards into suburbs and exurbs as in many American cities, is likely to continue to dominate the debate.

In Asia and Africa, the challenge is more likely to be how to prevent cities from spinning out of control as they take the leap from formerly tranquil rural villages to mega-cities in the course of no more than a few decades. By 2025, China alone is expected to have added roughly 300 million new urban dwellers and between 30 and 40 billion square meters of new floor space <sup>3</sup>: two mind-boggling figures, no doubt.

Ultimately, the main challenge, regardless of region, is the same: how to ensure that tomorrow's cities, soon home to two-thirds of the world population, will be sustainable and attractive places for people to live, work and raise families in.

#### BALANCING GREY WITH GREEN

Providing urban green spaces will be an important part of meeting this challenge.

55%

the share of urban respondents globally in this year's survey who identified "green areas" as a feature they would like to see more of in their cities, making it the most frequentlymentioned feature.



Making sure that for every grey space added there is also some green will help make cities more livable and citizens healthier. This is as true for the existing major cities as it is for the developing ones.

In our global survey, 55% of urban respondents claim that they would like to have more green areas in their city. Of course, greenery is not sole priority; in order for cities to prosper, there are many other necessities; well-functioning communications, healthcare, water and energy provision, as well as general safety, to name only a few. But maintaining a functioning connection with nature is without a doubt vital. History teaches us that as cities grow and develop, so must their green spaces; otherwise, they risk turning into unwelcoming jungles of stone and concrete – not a desirable outcome.

#### **URBAN GREEN SPACES ON THE RISE**

As urban areas continue to grow, then, so will the importance of providing good green areas. As more and more of us move to the

cities, we will increasingly seek respite from the hustle and bustle of the metropolitan life, a reconnection with nature. Because of this, urban green spaces are bound to be on the rise.

#### SUMMARY

- The world is entering a phase of rapid urbanization, especially pronounced in Asia and Africa.
- The global importance of urban green spaces is bound to increase, as history shows that cities cannot thrive in the long run without incorporating such spaces.

# 2: The healthy color of green

How urban green spaces provide us with both physical and psychological benefits, and why these services are likely to become even more important in the future

67%

the share of urban respondents globally in this year's survey who reported going to parks or green spaces when they wanted to or unwind and relax.

Two hundred years ago, an average day at work for most people did not last from nine to five, nor did it involve interacting with sophisticated technology from the comforts of a chair. Back then, "offices" were more likely to be ill-lit factory floors with poor air quality, extreme noise levels and back-breaking work; an environment that could, for many, be mirrored in home life as well.

#### A LUCKY COINCIDENCE

Today, most of the developed world has escaped the working conditions that prevailed in 19th century Europe. As a consequence, many of the original reasons for incorporating green spaces in the city – giving citizens a chance to enjoy sunshine and unpolluted air – are not as urgently relevant as they once were.

Interestingly enough, this does not appear to have diminished the importance of urban green spaces from a public health perspective. As if by a lucky coincidence, we now have decades of accumulated research that indicate parks and green spaces might be as suited for

combating many 21st century lifestyle-related afflictions – stress, obesity and depression – as they once were in battling the plagues of history.

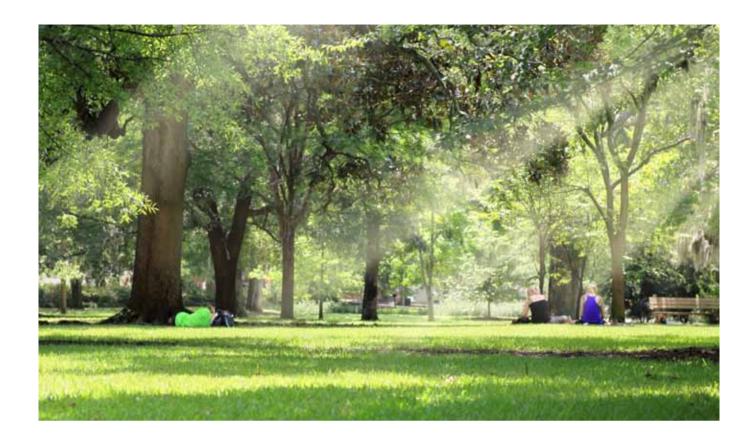
#### PERKS OF A GREEN VIEW

Although the positive effects of spending time in nature have rarely been questioned, it is only of relatively recent that scientists and researchers have taken a real interest in the subject. Indeed, the field took off in the 1980s with the publication of several groundbreaking studies showing that hospital patients recovered more quickly from surgery if they had access to rooms overlooking a park with trees, or that a two-week stay in the wilderness could be shown to have a significant stress-reducing and restorative effect on the participants. Since then, the original findings of these articles have been verified time and time again.

Today, there is a strong body of scientific evidence bolstering the idea that people with access to parks and similar green spaces are not only more likely to exercise regularly, but

67%

the share of American urban respondents in this year's survey who believed that having access to a good green space might get them to exercise more regularly.



are also less likely to feel stressed, angry and depressed. A wealth of hard data now backs up the belief that interacting with nature, even if in a small urban pocket park, can be beneficial both from a physiological and from a psychological point of view.

an end soon – that is, the ongoing global trend towards an ever-quickening flow of information, interaction and production seen since the industrial revolution – these services are likely to become even more important in the future.

### SUNSHINE AND FRESH AIR FOR THE 21ST CENTURY

Two hundred years ago, parks and other green spaces were brought into the city landscape partially as a way of giving the people some fresh air and sunlight. Today, although these services are still appreciated, it is perhaps the stress-relieving, exercise-encouraging features that have grown to become even more important from a public health point of view.

In this fast-paced world of densely-populated cities and citizens who lack physically-demanding careers, the existence of areas that offer haven, retreat, and exercise opportunity is arguably more important than ever. And unless you are of the belief that the mega-trend known as Acceleration is coming to

#### SUMMARY

- Although the positive effects of spending time in nature are generally accepted, it is only of a relatively late date that scientists and researchers have taken a real interest in the subject.
- Today there is strong scientific evidence indicating that people who have access to parks and other similar green spaces are not only more likely to exercise regularly, but are also less likely to feel stressed, angry and depressed.

## 3: Green makes for livable cities

How more and more cities are using urban green spaces to help make the city a more comfortable and environmentally sound place to live in

36 million

the number of liters of storm water that the New York Greenstreet program, aimed at converting paved, vacant traffic island, alone will help to capture yearly. When, at the end of 2009, the mayor of London announced the ambitious Great Outdoors program, an urban green space program aimed at "creating beautiful oases throughout the capital's urban jungle," he did so not only to make public spaces in London greener and more enjoyable but also as a way of ensuring that, in the future, urban areas would continue to be sustainable in environment and climate. Concern for this has seen initiatives adopted in many major cities around the world: New York, Hong Kong and Singapore all have a vested interest in using green spaces to improve the urban climate.

#### A TWO-FOLD SERVICE

So, in what way can urban green spaces help to make the city environment more pleasant? Basically, the climatic services that urban green spaces provide are twofold: they help to regulate the climate of cities and to improve the quality of air.

In regulating temperature, urban green spaces have been found to be in combating a phenomenon known as "urban heat islands." Cities have a tendency to become heat islands due to large concentrations of buildings and hard surfaces that absorb heat during the day and retain it after dark, making night temperatures in cities higher than in the countryside. In addition, concentration of buildings restricts the natural airflow, which otherwise would tend to push away the stored-up heat. Urban green spaces help to reduce these effects by getting the air moving, as well as by channeling fresh air flowing in from the surrounding neighborhoods to the city center.

#### **LUNGS OF THE CITY**

Turning our attention to the air quality of cities, urban green spaces – especially trees – function as giant filters in the city, absorbing much of the dust, air-born pollutants and heavy metals that highly populated areas tend to produce everyday. Trees and other vegetation capture and store these micro-particles, thus improving the quality of our urban air. John Claudios Loudon was clearly onto something when in 1829 he referred to urban parks as "breathing zones" for metropolitan areas.

41%

the share of urban respondents globally in this year's survey who identified "pollution" as the greatest downside with living in an urban environment, making it the most frequently mentioned problem.



#### A REFUGE FOR STORM WATER

The services of urban green areas extend beyond air and climate improvement; lately, cities such as New York and London have both begun to rely on the permeability of urban green surfaces to help absorb and filter storm and surface runoff in the city, which otherwise drain into already-strained sewer systems. According to one calculation, the New York City Greenstreets program – a program aimed at converting paved, vacant traffic islands into green spaces – will help to absorb over 36 million liters of storm water annually.

#### INCREASING LIVABILITY

Urban green spaces provide urban dwellers with aesthetic, physiological, and psychological benefits. Increasingly, cities have also begun to rely on green spaces for improving the physical urban environment. Many now recognize green spaces as energy-efficient ways of adjusting the urban climate, cleaning the air and managing excess surface water.

Perhaps more interestingly, cities are also starting to experiment with urban green spaces

as a possible way of mitigating the effects of global warming, using vegetation to remove CO<sub>2</sub> from the atmosphere. With temperatures and rainfall in many major cities projected to increase in the years ahead, adding more green spaces in the city might prove to be one of the more effective ways of coming to grips with these changes. It is clear that urban green spaces are about more than just recreation and visual appeal – they are also an increasingly important factor in making cities of tomorrow more livable.

#### SUMMARY

- Although most city dwellers probably associate urban green spaces with aesthetic and recreational niceties, green spaces also provide increasinglyvital environmental services for cities.
- Among the most important environmental services, urban green spaces help to improve air quality, reduce heat island effects, and absorb large quantities of storm water.

# 4: The nature of neighborhood satisfaction

Why green spaces are important for the attractiveness of a community and for our overall level of happiness in general

66%

the share of respondents globally in our survey that reported being willing to pay more for an apartment or house if it was located in an area with good green spaces, compared with, for instance, 39% for an area with good shopping, and 39% for good cultural venues.

A KEY TO HAPPINESS

urban areas more attractive.

According to Richard Florida – an influential writer on the subject – satisfaction with the place in which we live appears to be almost as important for our general level of happiness as satisfaction with personal relationships and work. <sup>4</sup> Incidentally, satisfaction with the place we live is in turn influenced by our perception of its aesthetic beauty – an important part of which is the quality and availability of green spaces. When researches surveyed over 27 000 individuals in order to better understand

That parks, trails and other green areas

can help make the atmosphere of a city or

neighborhood more pleasant is hardly news;

anyone who has lived in a metropolitan area

as New York's Central Park, London's Hyde

knows the important part played by parks such

Park or Hong Kong's Hong Kong Park in making

However, what many people don't know is

that access to good green spaces may correlate

with overall level of happiness as well.

the determinants of satisfaction with one's neighborhood, the quality and availability of green spaces was more strongly correlated to overall satisfaction with the area than nightlife, cultural offerings or public transportation.

#### A PREMIUM WILLINGLY PAID

Evidence that the aesthetic beauty green spaces provide is indeed something that individuals value can be found in the beauty premium that we are willing to pay to live near them. It is well known that apartments adjacent to major parks are usually among the most attractive (and exorbitantly-priced) ones in the city. Indeed, in London, small parks (green squares) were originally used as means of persuading people to build houses there; and in New York, Central Park was originally used as a way of increasing the property value of the surrounding neighborhoods. This positive effect of green spaces on property values has also been well documented in many studies over the years.

Real estate ads offer a tangible example

57%

the share of respondents globally in our survey who listed "because it makes the neighborhood more attractive in general" as a reason for why green spaces can contribute to a community spirit, making it the most frequently mentioned reason.



of this idea; in most advertisements for new apartments, closeness to and availability of green spaces are among the first things mentioned once interior aspects have been thoroughly discussed. For instance, a Swedish study from 2011 found that closeness to nature and other green areas often got more attention than the availability of communications and distance to shopping centers or daycare centers etc. <sup>5</sup>

#### MORE THAN A LUXURY

The aesthetic beauty provided by parks and green spaces is not just a subsidiary luxury.

True, aesthetic beauty is something that we tend to focus on once more basic needs have been met; but, as Florida points out, aesthetic factors such as parks and green spaces are not just something valued by those who have comfortably reached the highest level of Maslow's pyramid of needs – they are valued by everyone, and as such deserve attention across varying regions and demographics.

Of course, the premium that we are willing

to pay for greener living will no doubt vary; but the desire is still basically the same. Given the importance of aesthetic beauty for our overall level of satisfaction with the area we live in and with our life in general, it would be strange if it were otherwise.

#### SUMMARY |

- The benefits associated with parks and green spaces are something valued by everyone. Parks and green spaces have been found to be more strongly correlated to the overall satisfaction with the neighborhood than nightlife, cultural offerings or public transportation.
- The positive effect of green spaces on property values is documented in many studies over the years. In our study, far more respondents reported being willing to pay a higher price to live near green spaces than, among other things, places with good nightlife or cultural venues.

## 5: The pond is where we bond

How urban green spaces perform a vital function as a city's "third places"

89%

the share of respondents globally in our survey who believed that a good green space such as a park could contribute positively to neighborhood or community spirit.

As most of us are well aware, parks and other green spaces in the city can be great places for socializing, meeting with friends or picnicking with the family on a sunny day.

However, the social function of urban parks and green spaces extends beyond private spheres; as attractive public spaces in the city, they also serve to strengthen social inclusion, integration, as well as forming what sociologist refer to as "weak ties" with other members of the community: functions which will become more important as cities grow and diversify.

#### THE IMPORTANCE OF THIRD PLACES

Urban sociologists have long been interested in the role played by a city's "third places" for human relations in urban areas. Third places are those public or semi-public places in the city that provide social interactions outside one's home or work network. Examples of such places include libraries, cafés, public squares, train stations, and, of course, public parks and other similar green spaces. These places are crucial for fostering community kinship and for

building aforementioned weak ties among the citizens – that is, those social ties that amount to weak acquaintances or familiarity with one another.

#### CREATING A SENSE OF BELONGING

It is not uncommon for a community park to function as a hub for public social life. As public spaces that everyone can enjoy regardless of background, parks and green spaces are in many ways ideal third places; they promote social interaction among different cultures, socio-economic groups, and age groups. Studies indicate that people living adjacent to parks know more about their neighbors, take a keener interest in the community and have a stronger sense of belonging in general. In an oft-quoted study 6, the University of Illinois able to show that the amount of public parks and green areas available to residents of public housing was visibly correlated with the amount of social ties: the more green spaces available, the greater probability that social ties were being formed.

55%

is the share of respondents globally in our survey that named "because it is something that everyone, regardless of background can enjoy" as a reason for why green spaces contribute to the neighborhood spirit.



Other studies concerned with the effect of public green spaces on social behavior have found evidence suggesting that having access to well-functioning green areas reduces crime, as such areas promote a feeling of "being connected" with others. For instance, in a Dutch study, which surveyed over 10 000 households, the amount of green spaces in different areas (as visible from aerial photos) was found to be predictive for the level of social integration. <sup>7</sup>

#### A UNIVERSAL MEETING PLACE

Cities are lively, vibrant and creative places where people tend to live in close proximity to each other. Nevertheless, they can also be impersonal and at times alienating; with many people using the city landscape as a means to get from home to work and back, the opportunity for people to actually meet and interact can be limited. Thus, well-functioning third places in the city are important; they provide us with natural places where we can meet and interact with our fellow citizens on equal terms.

As public spaces that everyone can enjoy, parks and similar green spaces are important third places in the city. Because most of us take pleasure in being in a beautiful natural surrounding, urban parks have the ability to bring together a plethora of city residents representing a broad spectrum of ethnicities, cultural backgrounds, and ages. As globalization continues, such "universal meeting places" might well grow to become even more important.

#### SUMMARY

- The social function of urban parks and green spaces extends beyond private spheres; as attractive public spaces in the city, they also serve to strengthen social inclusion and integration.
- Studies indicate that people living adjacent to parks tend to know more about their neighbors, take a keener interest in the community, and have a stronger sense of belonging in general

# 6: The green competitive edge

How urban green spaces might grow to become an increasingly important factor in the battle for global talent

36%

the share of respondents globally in our survey who identified a city's "quality of green areas" as a factor that they would especially consider if they had the opportunity to move to a city anywhere in the world.

Working for over thirty years to realize its vision of becoming the Garden City of the world, Singapore is, in many ways, at the forefront when it comes to visions for green cities. A plan originally aimed at combating the negative effects of rapid urbanization and industrialization, the Garden City idea has evolved to become one of the city's key competitive strengths. As Singapore works to transform itself from what used to be mainly a production economy to an information economy, its reputation for being one of the greenest cities in the world has proven to be a great asset when it comes to attracting the global knowledge workforce.

89%

the share of respondents globally in our survey who believed that the quality of green areas was either somewhat or very important for their overall impression of a city when visiting as a tourist

#### ATTRACTING TALENT IN A SPIKY WORLD

In the ongoing debate of whether today's world should be considered flat (geography matters less) or spiky (geography is everything), more and more people appear to be placing their bets on the latter. While information technology theoretically allows people to work pretty much from anywhere, global patterns

demonstrate that people do not wish to work just anywhere; they wish to work where the "action" is. Creative people – and tomorrow's economy that will revolve around them – tend to seek out other areas with creative people (for example, Silicon Valley). Thus, in a world where the workforce is more mobile than ever, finding ways of attracting (and keeping) talented people is a high priority for many cities.

#### THE DESIRABLE GREEN BRAND

For those with the privilege to choose, what are the qualifications for an ideal city? A competitive city today must be vibrant and offer a high quality of life – green spaces are a part of this offer. As mentioned previously, it is no longer enough for cities to be just safe and smart: they must also be green. This is why access to and quality of urban green spaces is one overarching theme that is mentioned in most of the global surveys that rank cities by livability, such as Mercers. This is also why a city such as Chicago has worked actively for many years to brand itself as a "the greenest"



city," with ambitious programs for tree planting, neighborhood greening and even a wellpublicized green roof atop its City Hall.

Further testimony to the importance of urban green spaces for the livability and attractiveness of an area can be found in OECD's ambitious survey "How's Life," which includes availability of urban green spaces among its indicators aimed at assessing the happiness and quality of life in 40 nations. Additionally, cities in Europe, the US and China are increasingly vying fiercely for various "Green City" awards that are now being handed out by state and non-governmental organizations.

#### A COMPETITIVE ADVANTAGE

In a world believed by many to be growing increasingly spiky, the ability of cities to attract the right kind of talent is increasingly crucial. In order to attract knowledge workers – or the creative class, as they are sometimes referred to – government officials are coming to realize that they need to offer not only safety and prosperity, but also a vibrant, exciting

and livable environment. For many people, attractive green spaces in which people can find peace, calm, and beauty, is part of such a description. Because of this, more and more cities now look at green spaces as a possible future competitive advantage in the global struggle for talent.

#### SUMMARY |

- As the world's knowledge workforce becomes more mobile than ever, findings ways of attracting (and keeping) talented people is a high priority for many cities.
- When competing on the global scene, it is no longer enough for cities to be just safe and smart: they must be safe, smart and green.

# 7: Using existing buildings in new ways

Why, to an increasing extent, we are likely to see existing buildings go green

## 70 000 square meters

amount of rooftop that Paris hopes to turn into green space over the next eight years. Necessity, it is said, is the mother of invention. In the case of urban green spaces, this certainly appears to be the case. Faced with the necessity of balancing two, apparently competing demands – denser cities and more green areas – a growing number of cities are now coming up with fresh new ideas for how to solve this equation. The basis for many such ideas centers on moving green areas into places where, until now, we haven't been used to seeing them: on rooftops, facades, and even indoors.

#### THE NEW COLOR OF ROOFTOPS

One simple yet ingenious way of combining more densely distributed buildings with more green spaces is to resolve the potential conflict over land by simply putting the one on top of the other. This is the core concept of green roofs; a solution that has already begun to be implemented in many places, and which we will most likely see more of in the future.

The rooftop of Chicago's city hall, which is now home to almost 1900 square meters of green space, is one high-profile example

of green roofs, but there are many more. Just recently, Paris announced plans to add seven acres of green roofs and garden to the city, as a part of a wider initiative to improve the city's biodiversity. In the UK, similar projects are currently on their way, with the government focusing on encouraging a wider use of landscaped roofs as a part of its plan for increasing green space in urban areas. Similar discussions are also taking place in Sydney and Tokyo. Green rooftops appear to be taking off for real.

#### **VERTICAL GARDENS**

Rooftops are not the only new places where we can expect to find urban greenery in the future. An idea that the French visionary botanist Patrick Blanc (among others) has long experimented with focuses on turning the facades of city buildings into veritable vertical gardens. Utilizing the key insight that plants are not dependent on soil to prosper – just water and nutrients – Blanc's projects involve covering facades with intricate irrigation systems so as to make them a suitable home for plant life. He has

200 square meters

the size of the newly inaugurated vertical green wall in London.



used this technique to create vertical gardens on such high profile buildings around Europe as train stations, parliamentary buildings, museums, hotels and restaurants. His ideas are spreading: in London, a 200 square meter green wall was recently inaugurated as a part of the city's Clean Air Fund; and in Copenhagen, several thousand plants now fill a façade facing one of its most prominent squares, their shape forming a map of the European continent. Finally, in Tokyo, one of the major staffing companies in the country decided to solve the problem of where to fit green spaces into the city's central business district (where the headquarters are located) by simply moving them indoors. Visitors and employees at Pasona now enter a ground floor lit by grow lights that face a large indoor rice paddy below, covering the lion's share of the floor space.

#### **COMING TO A ROOF NEAR YOU**

As land values in many city centers continue to appreciate, the struggle for precious ground intensifies. Under these circumstances, finding a way of fitting in good urban green spaces can

be a challenge. Findings frequently show that for future green spaces, the only way to grow is up. Whether spread horizontally over urban rooftops or vertically alongside city facades, green spaces around the world have begun to relocate to innovative places. Who knows – in twenty years, perhaps the nearest pocket park for city-dwellers will be the one located on the 10th floor of their building!

#### SUMMARY \_

- Faced with the necessity of balancing two apparently competing demands, denser cities and more green areas, a growing number of cities are now coming up with fresh new ideas for how to solve this equation.
- The basis for many such ideas centers on moving green areas into places where, until now, we haven't been used to seeing them: on rooftops, facades, and even indoors.

## 8: For bold new visions, look east

What new cities in Asia tell us about the future of urban green spaces

385

meters

the height that the "Urban Forest" skyscraper in the Chinese city of Chongqing might reach, if constructed With so much of the world's urbanization set to take place in Asia, it is not surprising that it is to the east we should look for visions of what urban areas in the future may resemble. It is in such countries as China and India, where people are rapidly adopting western standards of living (environmental stress and energy consumption included), that the challenge of constructing livable urban environments is most pressing.

#### **VISIONS OF A GREENER FUTURE**

If visions of the future are any kind of indicators of things to come, we can expect cities of tomorrow to integrate green spaces into the urban environment to an extent far beyond anything we are used to seeing today. In several of China's recent high-profile urban projects aimed at presenting the world with its first completely sustainable "eco-cities," provision of ample green space has been one of the key indicators guiding the whole planning process. The potential impact on city landscapes is truly exciting.

374 000

square meters

the size of the central park in the new green city of Songdo that is currently

under construction.

#### TWO CITIES - SIMILAR IDEAS

In the new eco-city Tianjin (a highly prestigious co-operative effort between China and Singapore due to be completed by 2020), urban green spaces permeate the entire city landscape. The city will be self-sufficient in energy and water use, and its inhabitants drive electric cars or commute; additionally, they will live also live in close proximity to nature. In the visions for the city, urban greenery is integrated into the very structure of many of the skyscrapers, with large glass structures reminiscent of futuristic greenhouses running alongside the facades of the buildings. Similarly, visions for public places and malls depict walls and roofs tastefully covered with various vegetation: a tropical rainforest to shop in.

In Songdo, another avant-garde green-city project currently undertaken in South Korea, the focus on green spaces is equally evident. Here, however, the plan is to have an additional 100-acre central park (approximately one-eighth the size of New York's Central Park) functioning as the focus of the entire city: an effort to ensure that public green spaces are never far away.



An illustration of Green Connectors, one part of The Tianjin Eco-Village in China, due to be completed in 2020. Courtesy of Surbana Urban Planning Group.

#### A VERTICAL URBAN FOREST

Eco-cities are not the only examples of bold approaches to combining urban environments with green spaces. Other projects that have received a lot of attention lately include the "Urban Forest" skyscraper in the Chinese city of Chongqing: an unconventional building measuring 385 meters in height. Floors of different shapes are stacked in seemingly random fashion, and many function as miniature parks in the midst of a highly urban environment. Yet another well-hyped green project is Hong Cheng Plaza in Guangzhou, which, if realized, will become China's first "urban park" retail mall.

#### FOCUS ON THE BIG PICTURE

The power of vision lies in its ability to stimulate the imagination, to present us with possible futures. Sometimes, though, this is all that they accomplish. Over the last years, many ambitious eco-city projects, such as the much talkedabout city of Dongtan outside Shanghai, have run amuck in taking the leap from vision to implementation. However, shortcomings and

failure shouldn't distract us from the bigger picture. China is currently the world's laboratory when it comes to eco-cities, and the world is watching the experiments closely. Sooner or later, a functioning city will emerge, and when that happens, we can rest assured that it will function as a guide on how to construct future cities. In this regard, then, new projects underway in Asia are indeed a telltale sign of things to come.

#### SUMMARY |

- Eco-city projects currently underway in Asia are a telltale sign of things to come
- Judging by what we've seen so far, we can expect cities of tomorrow to integrate green spaces into the urbar environment to an extent far beyond anything we see today.

# 9: We're learning to think outside the green box

How today's cities are finding clever new ways of bringing nature to the city

10 000 square meters the equivalent of woodland

the equivalent of woodland that the 27-story tall Bosco Verticale building in Milan will host once completed. When it comes to incorporating nature into urban environments, city plans in most major cities still reflect a way of thinking about urban greenery that dates to the 19th century. According to this view, green spaces are mainly to be confined to specifically-chosen public parks and gardens – clearly delimited areas of green in the midst of a landscape of steel and stone.

However, with environmental concerns high on the agenda and with an urban population growth that is showing no sign of slowing in the decades ahead, more and more cities around the world are beginning to think about new ways of increasing the presence of nature in our urban environments. As a result, a global explosion in urban green space creativity is surfacing.

#### **GREENING THE STREETS**

With New York a global trendsetter in so many other areas of city life, it is only natural that it should be in the vanguard of urban green space renewal as well. Lately, the city has made headlines worldwide with two ambitious green space projects aimed at making it more sustainable, attractive and livable all at once. With the High Line Park, completed in 2009, New York showed the world that an abandoned freight rail running through the city could be transformed into a vibrant urban park; and its Greenstreets program is now working on transforming most of its vacant traffic islands and medians into verdant oases, while simultaneously looking at planting a million new trees in the city.

#### SUPER TREES AND VERTICAL FORESTS

As New York produces creative new urban green space solutions, Montreal works to transform underutilized streets into urban parks. Likewise, a similar project in Copenhagen – turning vacant lots and other irregular land areas into small pocket parks where people can enjoy nature, eat lunch or just socialize – has recently been hailed as an inspiring example of how to make cities more livable.

On the more exotic side, Singapore - which

the number of 50-metertall "super trees" that Singapore is now planning to erect as a part of its "Garden By The Bay"



An illustration of the Bosco Verticale (vertical forest) currently under construction in Milan. Courtesy of Boeri Studio.

recently announced its intention to move from "garden city" to "city in the garden" – is now working on plans for its "Garden By the Bay" project. Included in the exploit is the construction of eighteen 50-meters-tall "super trees" – man-made vertical gardens that grow on giant steel frames resembling trees. In a similar vein, Milan, which will host the 2015 World Expo, is also working on combining high tech structures with lavish greenery; in the Bosco Verticale, or vertical forest, a 27-story building is now being constructed to host the equivalent of 10 000 square meters of woodland.

**HEEDING THE CALLS** 

As European cities began to experience a rapid influx of people during the early decades of the 19th century, they soon came to realize the importance of balancing urban densification with open green spaces. This insight has not been lost on today's cities, though 21st century cities cannot rely solely on 19th century ideas of urban green spaces to balance the coming city

expansions; new ideas are called for. Luckily, such calls are now beginning to be heeded. With projects such as the vertical forest in Singapore or the green streets of New York, the world's cities are clearly showing themselves capable of thinking outside the green box.

#### SUMMARY \_\_\_

- Cities around the world are increasingly beginning to think about new ways of increasing the presence of nature in our urban environments
- As a result, we are now witnessing a global explosion in urban green space creativity.

## 10: Maintenance is crucial

Why keeping green spaces in good condition is a challenge that must be met

the share of people in our global study that listed poor maintenance as a factor deterring them from visiting public parks, making it the third most frequently mentioned factor after lack of safety (56%) and vandalism (56%).

Beautiful and well-kept parks and green spaces help to make cities and neighborhoods more attractive and vibrant; they promote social interaction among city dwellers, attract business and often lend a sense of pride to the community in large.

However, as with many of a city's public places, poorly maintained and neglected green spaces can easily have the adverse effect; as reflection of community commitment at large, poorly maintained parks and green spaces signal decline, decay and indifference – signals that, if left unchecked, can set a vicious cycle in motion.

#### A VICIOUS CYCLE

the share of people in our global study that identified "they are well-maintained" as one of the

most important features of parks, making it the most

frequently mentioned

green space is all too familiar. What begins as a slightly less well-maintained green area soon turns into a bedraggled remnant. When this happens, the enjoyment we get from visiting it diminishes, and so less people do. After a while, the only visitors to the area are those who prefer to stay away from the public eye;

The vicious cycle set in motion by neglecting

clientele that the general public avoids as well. By this time, since no one seems to care or visit the area much anyway, others see little harm in vandalizing or destroying features. At this stage of the process, what used to be a source of well being and pride has turned into an eyesore for the community – a constant reminder of societal remiss and a potentially dangerous place to be avoided.

This spiral of decline and the associated negative consequences is something that has been well documented in a wealth of studies. In almost every survey conducted on green space usage, poor maintenance, safety and vandalism are the top reasons mentioned for staying away from these places or not visiting them more often. As illustrated above, however; these detrimental qualities are in fact quite interconnected.

#### CREATIVE SOLUTIONS ARE AVAILABLE

As with all public places, proper upkeep is a prerequisite for proper usage. Nowhere is this more true than in the case of urban green



spaces require frequent maintenance.

City and community officials are of course aware of the importance of upkeep. Nevertheless, the last thirty years have seen urban green spaces in many cities suffering a decline in quality and maintenance as a result of tighter budgets. With many pressuring demands to be met, it is all too easy to take the services of parks and green spaces for granted in hopes that they will somehow take care of themselves – a rare conclusion.

But disregard is neither a solution nor a necessity. The challenge of maintaining parks and green spaces can be met in several ways, only one of which is increased public spending. Other solutions that are now being experimented with include various local taxation initiatives, engaging the local community in voluntary green space maintenance programs, and various private sector funding/sponsorship programs. Clearly, there is much to be gained by continuing to explore such alternatives.

### MAINTENANCE – THE 21<sup>ST</sup> CENTURY GREEN SPACE CHALLENGE

With so many benefits accruing from properly maintained green spaces, it is a waste of potential to let them fall into a spiral of decline as a result of insufficient maintenance. Indeed, keeping green spaces in good condition can sometimes pose a challenge; however, as the importance of green spaces for the urban environment continues to grow, there is little doubt that it is a challenge that both can and must be met.

#### SUMMARY

- Keeping green spaces in good condition, thus preventing them from falling into the vicious cycle of degradation, can be a challenge for cities
- Still, given the growing importance of green spaces for the urban environment, this is a challenge that can and must be met





## A green space snapshot of nine countries

#### USA Degree of urbanization: 82%\*

Share (of respondents) reporting spending at least 30 minutes per week in smaller parks during spring/summer: **60%** 

Share who believe there will be more green spaces in their city twenty years from now: 41%

#### UK Degree of urbanization: 80%\*

Share (of respondents) reporting spending at least 30 minutes per week in smaller parks during spring/summer: **54%** 

Share who believe there will be more green spaces in their city twenty years from now: **27%** 

#### **POLAND** Degree of urbanization: **61%**\*

Share (of respondents) reporting spending at least 30 minutes per week in smaller parks during spring/summer: 63%

Share who believe there will be more green spaces in their city twenty years from now: **32%** 

#### FRANCE Degree of urbanization: 85%\*

Share (of respondents) reporting spending at least 30 minutes per week in smaller parks during spring/summer: **51%** 

Share who believe there will be more green spaces in their city twenty years from now: **45%** 

#### **GERMANY** Degree of urbanization: 74%\*

Share (of respondents) reporting spending at least 30 minutes per week in smaller parks during spring/summer: **54%** 

Share who believe there will be more green spaces in their city twenty years from now: **27%** 



## **SWEDEN** RUSSIA Degree of urbanization: 85%\* Degree of urbanization: 73%\* Share (of respondents) reporting spending at least Share (of respondents) reporting spending 30 minutes per week in smaller parks during spring/ at least 30 minutes per week in smaller parks summer: 75% during spring/summer: 61% Share who believe there will be more green spaces in Share who believe there will be more green their city twenty years from now: 24% spaces in their city twenty years from now: \*source: United Nations, 2009

CHINA Degree of urbanization: 46%\*

Share (of respondents) reporting spending at least 30 minutes per week in smaller parks during spring/summer: 70%

Share who believe there will be more green spaces in their city twenty years from now: **75%** 

AUSTRALIA Degree of urbanization: 89%\*

Share (of respondents) reporting spending at least
30 minutes per week in smaller parks during spring/
summer: 49%

Share who believe there will be more green spaces in their city twenty years from now: **34%** 



A CLOSER LOOK AT URBAN GREEN SPACES IN:

# Australia

#### AN URBAN CONTINENT

With an urbanization degree of close to 90%, Australia has historically been one of the world's most urbanized countries. Today, roughly two-thirds of Australia's 23 million inhabitants reside in just 17 cities, and a majority are concentrated in the five major cities of Sydney, Brisbane, Melbourne, Adelaide and Perth.

Despite its high level of urbanization today, Australia is projected to continue its city-centric trend in the years to come. Between 2001 and 2010, both Sydney and Melbourne each added close to 500,000 new urban dwellers; and by 2050, official projections suggest that the degree of urbanization will have climbed to 94%, with the top five cities absorbing a lion's share of this increase.

#### **PROUD AND SATISFIED**

As a country, Australia is proud of its green spaces, which are plentiful in many of its cities. Lately, heightened concerns over global warming and a growing interest in ways to mitigate urban heat islands have led to increased interest in urban green spaces. Despite relatively ample provisions, however, green spaces was still the most frequently mentioned feature Australian respondents wanted to see more of in their cities (chosen by 55%). This may in part be explained by the high levels of satisfaction with current conditions of green space, as 74% of Australians reported being either fairly or very satisfied in this regard.

#### **HEADING THE WRONG WAY?**

Australia is a country proud of its green spaces. Nevertheless, the perceived current green space balance provides cause for hesitation; more Australians believe that their part of the city has become less green over the last ten years (30%) rather than more (22%). Moreover, the situation is similar in regard to the years ahead. Whereas 42% of Australian respondents believe their cities will be less green twenty years from now, only 34% see a growth in green spaces spaces taking place.

## COUNTRY PROFILE: AUSTRALIA

Population: 23 million

Degree of urbanization

2009\*: 89%

Projected degree of urbanization 2050\*: 94%

## 10 YEAR GREEN SPACE BALANCE

-8 %

The 10 year green space balance refers to the difference in percentage points of respondents in Australia reporting that their part of the city had become more green over the last ten years (30%) compared to those who believed it had become less green (22%)

## CURRENT GREEN SPACE SITUATION

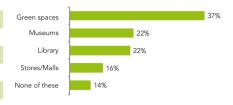
Green spaces are an important feature of the urban landscape. Among Australian respondents, 55 % wished for more green areas in the city, placing it at the top of our list. Green spaces are also important as third places in the city, it is the most popular place to go in the city to be creative. (n=540)

#### THE IDEAL CITY IS GREENER

| 1 | Green areas     | 55% |
|---|-----------------|-----|
| 2 | Parking spaces  | 46% |
| 3 | Public squares  | 26% |
| 4 | Cultural venues | 22% |
| 5 | Bicycle lanes   | 20% |

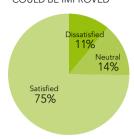
What would you rather have more of in the city today? % of respondents choosing each alternative. Multiple responses allowed.

#### **GREEN SPACES ARE CREATIVE SPOTS**



If you need a place in the city where you can be creative/get new ideas, where do you usually go? % of respondents choosing each alternative. Multuple responses allowed.

#### PARK MAINTENANCE COULD BE IMPROVED



How satisfied would you say that you are in general with the condition of small parks or green spaces in your part of the city?

#### REASONS FOR VISITING AND IMPORTANT FEATURES

To go for a walk and exercise are the main reason for visiting urban green spaces according to our Australian respondents. Lack of safety was the most frequently named factor that deter from visiting green areas. (n=540)

## TOP 5 REASONS FOR VISITING GREEN SPACES

| 1 | Go for a walk      | 55% |
|---|--------------------|-----|
| 2 | Exercise           | 45% |
| 3 | Get fresh air      | 44% |
| 4 | Enjoy surroundings | 42% |
| 5 | Relax              | 32% |

What would you say are the main reasons why you visit green spaces? % of respondents choosing each alternative. Multuple responses allowed.

## TOP 5 REASONS FOR AVOIDING PARKS

| 1 | Unsafe            | 70% |
|---|-------------------|-----|
| 2 | Vandalised        | 65% |
| 3 | Poorly maintained | 62% |
| 4 | Dog mess          | 41% |
| 5 | Too noisy         | 40% |

What are the main factors that would dissuade/deter you from visiting a park/garden? % of respondents choosing each alternative. Multuple responses allowed

## TOP 5 MOST IMPORTANT PARK FEATURES

| 1 | Well maintained             | 52% |
|---|-----------------------------|-----|
| 2 | Safe to visit               | 52% |
| 3 | Large enough for jog/stroll | 40% |
| 4 | Easy to access              | 37% |
| 5 | Visually appealing          | 37% |

In your opinion, what are the most important thing about public parks/ gardens? % of respondents choosing each alternative. Multuple responses allowed.

#### THE VALUE OF GREEN SPACES AND CURRENT TRENDS

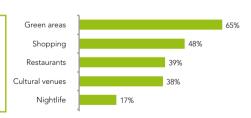
Many studies point to the important part played by green spaces in attracting people to a city and making its neighborhoods more attractive. 30 % of Australian respondents reported green spaces as an important factor to consider when choosing what city to live in; 65 % reported being willing to pay more to live in an area with good green spaces. (n=540)

#### GREEN SPACES IMPORTANT FOR CITY APPEAL

| Job market           | 41% |
|----------------------|-----|
| Green spaces         | 30% |
| Social atmoshphere   | 27% |
| Architectural beauty | 16% |
| The nightlife        | 5%  |
|                      |     |

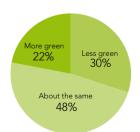
If you could chose to move to a new city anywhere in the world, which of the following factors do you think would especially influence your choice of city? % of respondents choosing each alternative. Multuple responses allowed. Selection of benchmark-factors.

#### THE VALUE OF GREEN SPACES



In general, would you be willing to pay a higher price for a house/apartment if it was located in an areas with good... % of respondents answering 'yes, probably' 'yes, definitely'

#### THE GREEN SPACE BALANCE





A CLOSER LOOK AT URBAN GREEN SPACES IN:

# China

## AN UNPRECEDENTED SCALE OF URBANIZATION

2012 marks an important shift for China; for the first time, the share of the country's population residing in cities exceeded the 50%, up from roughly 10% in the early 1950s. Nonetheless, China's urbanization has only begun its development. According to estimates, the country is expected to have added between 200 and 300 million new city dwellers by 2025; and UN figures predict that today's roughly 50% degree of urbanization is expected to reach 73% by 2050.

With such a major transformation ahead, the challenges and opportunities associated with urbanization will surely continue to be a key issue for the country in decades ahead.

#### **GREEN IN HIGH DEMAND**

As previously mentioned in the report, the importance of urban green spaces has not been lost on China. The country has recently engaged in a number of high-profile green projects, ranging from forest shelterbelt

projects to eco-cities. Moreover, its citizens seem to desire more environmentally-friendly cities; in our survey, green spaces was by far the most frequently mentioned feature (76%) that Chinese respondents wanted to see more of in their cities. It should be mentioned that Chinese respondents are generally satisfied with existing, smaller green spaces in their cities; only 13% reported being either fairly or very dissatisfied with current conditions.

#### **ENVISIONING A GREENER FUTURE**

With regards to the current balance of green space, China and the US were the only countries where more respondents reported experiencing a growth rather than a decline of green spaces in their cities over the last 10 years: in the case of China, the trend appears strongly positive. Chinese respondents expect the trend to persist; an impressive 75% of respondents believe that their cities will contain more green spaces twenty years from now rather than less (12%).

## COUNTRY PROFILE: CHINA

Population: 1.3 billion
Degree of urbanization
2009\*: 46%

Projected degree of urbanization 2050\*: 73%

## 10 YEAR GREEN SPACE BALANCE

+37 %

The 10-year green space balance refers to the difference in percentage points of respondents in China reporting that their city region had become more green over the last ten years (63%) compared to those who believed it had become less green (26%).

## CURRENT GREEN SPACE SITUATION

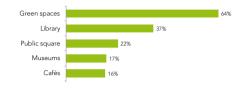
Green spaces are an important feature of the urban landscape. Among Chinese respondents, 76 % wished for more green areas in the city, placing it at the top of our list. Green spaces are also important as third places in the city, it is the most popular place to go in the city to be creative. (n=550)

#### THE IDEAL CITY IS GREENER

| 1 | Green areas       | 76% |
|---|-------------------|-----|
| 2 | Public squares    | 42% |
| 3 | Museums/Libraries | 41% |
| 4 | Cultural venues   | 30% |
| 5 | Parking spaces    | 26% |

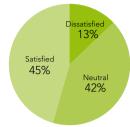
What would you rather have more of in the city today? % of respondents choosing each alternative. Multiple responses allowed.

#### **GREEN SPACES ARE CREATIVE SPOTS**



If you need a place in the city where you can be creative/get new ideas, where do you usually go? % of respondents choosing each alternative. Multuple responses allowed.

#### PARK MAINTENANCE COULD BE IMPROVED



How satisfied would you say that you are in general with the condition of small parks or green spaces in your part of the city?

#### REASONS FOR VISITING AND IMPORTANT FEATURES

To get fresh air and to go for a walk are the main reason for visiting urban green spaces according to our Chinese respondents. Lack of peace and quiet was the most frequently named factor that deter from visiting green areas. (n=550)

## TOP 5 REASONS FOR VISITING GREEN SPACES

| 1 | Get fresh air           | 65% |
|---|-------------------------|-----|
| 2 | Go for walk             | 51% |
| 3 | Peace and quiet         | 47% |
| 4 | Enjoy flowers and trees | 44% |
| 5 | Enjoy surroundings      | 38% |

What would you say are the main reasons why you visit green spaces? % of respondents choosing each alternative. Multuple responses allowed.

## TOP 5 REASONS FOR AVOIDING PARKS

| 1 | Too noisy         | 60% |
|---|-------------------|-----|
| 2 | Poorly maintained | 52% |
| 3 | Too far away      | 46% |
| 4 | Vandalised        | 44% |
| 5 | Unsafe            | 41% |

What are the main factors that would dissuade/deter you from visiting a park/ garden? % of respondents choosing each alternative. Multuple responses allowed.

## TOP 5 MOST IMPORTANT PARK FEATURES

| 1 | Make you feel close to nature | 58% |
|---|-------------------------------|-----|
| 2 | Varied nature                 | 56% |
| 3 | Visually appealing            | 44% |
| 4 | Not too noisy                 | 43% |
| 5 | Large enough for jog/stroll   | 37% |

In your opinion, what are the most important thing about public parks/ gardens? % of respondents choosing each alternative. Multuple responses allowed.

#### THE VALUE OF GREEN SPACES AND CURRENT TRENDS

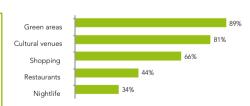
Many studies point to the important part played by green spaces in attracting people to a city and making its neighborhoods more attractive. 53% of Chinese respondents reported green spaces as an important factor to consider when choosing what city to live in; 89% reported being willing to pay more to live in an area with good green spaces. (n=550)

## GREEN SPACES IMPORTANT FOR CITY APPEAL

| Job market           | 28% |
|----------------------|-----|
| Green spaces         | 53% |
| Social atmoshphere   | 23% |
| Architectural beauty | 13% |
| The nightlife        | 7%  |
|                      |     |

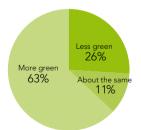
If you could chose to move to a new city anywhere in the world, which of the following factors do you think would especially influence your choice of city? % of respondents choosing each alternative. Multuple responses allowed. Selection of benchmark-factors.

#### THE VALUE OF GREEN SPACES



In general, would you be willing to pay a higher price for a house/apartment if it was located in an areas with good... % of respondents answering 'yes, probably' 'yes, definitely'

#### THE GREEN SPACE BALANCE





A CLOSER LOOK AT URBAN GREEN SPACES IN:

## France

#### A HIGHLY URBANIZED COUNTRY

Among the nine countries covered in the study, France (together with Sweden and Australia) tops the list of most urbanized countries, with the share of the population living in urban areas today standing at roughly 85%. This share is projected to reach 94% by 2050.

However, as interviewed experts point out, the urbanization process is far from straightforward; whereas cities such as Paris or Lyon have experienced positive growth over the last years, many others have not. OECD figures for the period 1980 – 2004 actually show a net decline in the share of urban population, although relatively modest. Nevertheless, France will likely remain one of the most urbanized countries in Europe.

#### **GREEN SPACES IN HIGH DEMAND**

Whether it is the high rate of urbanization, a rural-romantic national spirit, or something else altogether, French respondents in our study stand out as particularly keen to see more green spaces in their city; a full 72% chose

green spaces as a city feature that they would like to see more of, far above the global average of 55%. French respondents were also among the least content with the current condition of green spaces in their cities, with almost a quarter (23%) reporting being either somewhat or very dissatisfied with the prevailing situation.

#### A POSITIVE TREND

Regarding the current balance of green space in their area, 31% of French respondents believed that the amount of green spaces had decreased over the last 10 years, compared to 22% who believed that it had increased. This apparent negative trend, however, is not necessarily expected to last; when asked if, twenty years from now, they believed that their city would be more or less green, almost half of the respondents (45%) believed their city would be greener, compared to 29% who believed the opposite.

## COUNTRY PROFILE: FRANCE

Population: 66 million

Degree of urbanization

2009\*: 85%

Projected degree of urbanization 2050\*: 94%

## 10 YEAR GREEN SPACE BALANCE

-9 %

The 10 year green space balance refers to the difference (in percentage points) of French respondents reporting that their area had become more green over the last ten years (22%) compared to those who believed it had become less green (31%).

## CURRENT GREEN SPACE SITUATION

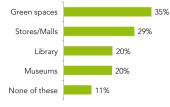
Green spaces are an important feature of the urban landscape. Among French respondents, 72% wished for more green areas in the city, placing it at the top of our list. Green spaces are also important as third places in the city, it is the most popular place to go in the city to be creative. (n=490)

#### THE IDEAL CITY IS GREENER

| 1 | Green areas       | 72% |
|---|-------------------|-----|
| 2 | Parking spaces    | 38% |
| 3 | Bicycle lanes     | 30% |
| 4 | Cultural venues   | 28% |
| 5 | Museums/Libraries | 18% |

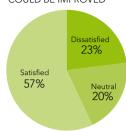
What would you rather have more of in the city today? % of respondents choosing each alternative. Multiple responses allowed.

#### **GREEN SPACES ARE CREATIVE SPOTS**



If you need a place in the city where you can be creative/get new ideas, where do you usually go? % of respondents choosing each alternative. Multiple responses allowed.

#### PARK MAINTENANCE COULD BE IMPROVED



How satisfied would you say that you are in general with the condition of small parks or green spaces in your part of the city?

#### REASONS FOR VISITING AND IMPORTANT FEATURES

To go get fresh air and go for a walk are the main reason for visiting urban green spaces according to our French respondents. Dog mess was the most frequently named factor that deter from visiting green areas, and good upkeep the most important feature of urban parks. (n=490)

## TOP 5 REASONS FOR VISITING GREEN SPACES

| 1 | Get fresh air   | 55% |
|---|-----------------|-----|
| 2 | Go for walk     | 54% |
| 3 | Just hang out   | 38% |
| 4 | Peace and quiet | 37% |
| 5 | Exercise        | 29% |

What would you say are the main reasons why you visit green spaces? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 REASONS FOR AVOIDING PARKS

| 1 | Dog mess          | 60% |
|---|-------------------|-----|
| 2 | Vandalised        | 58% |
| 3 | Poorly maintained | 53% |
| 4 | Too noisy         | 53% |
| 5 | Unsafe            | 49% |

What are the main factors that would dissuade/deter you from visiting a park/garden? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 MOST IMPORTANT PARK FEATURES

| 1 | Well maintained | 45% |
|---|-----------------|-----|
| 2 | Easy to access  | 45% |
| 3 | Places to sit   | 45% |
| 4 | Varied nature   | 44% |
| 5 | Not too noisy   | 36% |

In your opinion, what are the most important thing about public parks/ gardens? % of respondents choosing each alternative. Multiple responses allowed.

#### THE VALUE OF GREEN SPACES AND CURRENT TRENDS

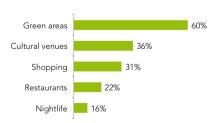
Many studies point to the important part played by green spaces in attracting people to a city and making its neighborhoods more attractive. 29% of respondents in France reported green spaces as an important factor to consider when choosing what city to live in; 60% reported being willing to pay more to live in an area with good green spaces. (n=490)

## GREEN SPACES IMPORTANT FOR CITY APPEAL

| Job market           | 36% |
|----------------------|-----|
| The nightlife        | 12% |
| Green spaces         | 29% |
| Social atmosphere    | 34% |
| Architectural beauty | 25% |
|                      |     |

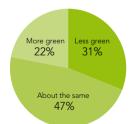
If you could chose to move to a new city anywhere in the world, which of the following factors do you think would especially influence your choice of city? % of respondents choosing each alternative. Multiple responses allowed. Selection of benchmarkfactors

#### THE VALUE OF GREEN SPACES



In general, would you be willing to pay a higher price for a house/apartment if it was located in an areas with good... % of respondents answering 'yes, probably' 'yes, definitely'.

#### THE GREEN SPACE BALANCE





A CLOSER LOOK AT URBAN GREEN SPACES IN:

# Germany

#### **BECOMING MORE URBAN**

Although Germany is fairly rural compared to many of its European neighbors, it is a country in transition. Today, 74% of Germans live in urban areas, projected at 84% by 2050 and thus on a similar level to countries like Sweden and the US today.

Among the nine countries in the study, Germany is the fourth least urbanized, after China, Poland and Russia. The ajor metropolitan areas in Germany are experiencing the fastest rate of urbanization, and among the cities that have experienced the fastest growth in recent years we find Munich and Hamburg. As experts from our study were quick to point out, urbanization in Germany is unevenly distributed across the country with some areas experiencing growth and others decline.

#### THE CONCRETE JUNGLE LESS OF A THREAT

Relative to other countries, Germans respondents appear to perceive lack of green areas in the urban environment as less of a problem. 34% of respondents chose green

areas as a feature that they would like to see more of in the city landscape: a sizeable share but nevertheless lower than average (55%). This relatively low demand for more green space does not appear to be directly attributable to higher satisfaction with cities' current green space situation; 55% reported being satisfied and 20% dissatisfied.

#### **EQUILIBRIUM ABOUT TO TIP?**

With regards to current green space balance, Germany on the whole seems to be more or less in equilibrium: 21% of the German respondents reported that their city area had become more green over the last 10 years and 23% reported the opposite. As in most other countries however, they foresee a future of more densely-populated, polluted and hectic cities. And, looking ahead, more respondents do foresee the amount of green spaces declining (41%) rather than growing (27%).

#### COUNTRY PROFILE: GERMANY

Population today: 82 million

Degree of urbanization 2009\* 74%

Projected degree of urbanization 2050: 84%

## 10 YEAR GREEN SPACE BALANCE

-2 %

The 10 year green space balance refers to the difference in percentage points of respondents in Germany reporting that their city area had become more green over the last ten years (21%) compared to those who believed it had become less green (23%)

## CURRENT GREEN SPACE SITUATION

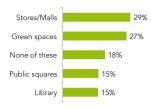
Green spaces are an important feature of the urban landscape. Among German respondents, 34% wished for more green areas in the city, placing it second after parking spaces in our list. Green spaces are also important as third places in the city, they are the second most popular place to go in the city to be creative. (n=530)

#### THE IDEAL CITY IS GREENER

| 1 | Parking spaces | 41% |
|---|----------------|-----|
| 2 | Green areas    | 34% |
| 3 | Bicycle lanes  | 31% |
| 4 | Apartments     | 24% |
| 5 | Public squares | 14% |

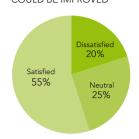
What would you rather have more of in the city today? % of respondents choosing each alternative. Multiple responses allowed.

#### **GREEN SPACES ARE CREATIVE SPOTS**



If you need a place in the city where you can be creative/get new ideas, where do you usually go? % of respondents choosing each alternative. Multiple responses allowed.

#### PARK MAINTENANCE COULD BE IMPROVED



How satisfied would you say that you are in general with the condition of small parks or green spaces in your part of the city?

#### REASONS FOR VISITING AND IMPORTANT FEATURES

Get fresh air and go for a walk are the main reason for visiting urban green spaces according to our German respondents. Vandalism was the most frequently named factor that deter from visiting green areas, and absence of noise as the most important feature of urban parks. (n=530)

## TOP 5 REASONS FOR VISITING GREEN SPACES

| 1 | Get fresh air    | 55% |
|---|------------------|-----|
| 2 | Go for walk      | 52% |
| 3 | Peace and quiet  | 40% |
| 4 | Relax            | 32% |
| 5 | Think/Clear head | 30% |

What would you say are the main reasons why you visit green spaces? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 REASONS FOR AVOIDING PARKS

| 1 | Vandalised   | 64% |
|---|--------------|-----|
| 2 | Dog mess     | 62% |
| 3 | Unsafe       | 58% |
| 4 | Too noisy    | 52% |
| 5 | Too far away | 43% |

What are the main factors that would dissuade/deter you from visiting a park/ garden? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 MOST IMPORTANT PARK FEATURES

| 1 | Not too noisy   | 46% |
|---|-----------------|-----|
| 2 | Easy to access  | 44% |
| 3 | Places to sit   | 42% |
| 4 | Safe to visit   | 39% |
| 5 | Well maintained | 37% |

In your opinion, what are the most important thing about public parks/ gardens? % of respondents choosing each alternative. Multiple responses allowed.

#### THE VALUE OF GREEN SPACES AND CURRENT TRENDS

Many studies point to the important part played by green spaces in attracting people to a city and making its neighborhoods more attractive. 30% of respondents in Germany reported green spaces as an important factor to consider when choosing what city to live in; 49% reported being willing to pay more to live in an area with good green spaces. (n=530)

## GREEN SPACES IMPORTANT FOR CITY APPEAL

| Architectural beauty | 12% |
|----------------------|-----|
| Social atmosphere    | 49% |
| Green spaces         | 30% |
| Job market           | 52% |
| The nightlife        | 10% |

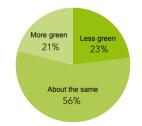
If you could chose to move to a new city anywhere in the world, which of the following factors do you think would especially influence your choice of city? % of respondents choosing each alternative. Multiple responses allowed. Selection of benchmarkfactors.

#### THE VALUE OF GREEN SPACES



In general, would you be willing to pay a higher price for a house/apartment if it was located in an areas with good... % of respondents answering 'yes, probably' 'yes, definitely'.

#### THE GREEN SPACE BALANCE





A CLOSER LOOK AT URBAN GREEN SPACES IN:

# Poland

#### **URBANIZATION GAINING MOMENTUM**

With roughly 61% of the population living in urban areas today, Poland is the second least urbanized country covered by this year's study. Although home to over 38 million people, Warsaw – with 1.7 million inhabitants – is the only city to break the million mark. Poland is also one of the few countries in Europe to have undergone de-urbanization over the last decades.

The projection for the middle of the century has Polish urbanization reaching 74%, a forecast supported by interviewed experts. Repeatedly stressed was the fact that the country is currently experiencing a rapid and aggressive rate of urbanization especially noticeable in the four major cities of Warsaw, Wroclaw, Gdansk and Poznan.

#### **BICYCLES, PARKING SPACES AND GREENERY**

With 51% of respondents mentioning them, green spaces are the third most frequently-mentioned feature that Polish respondents would like to see more of in the city, after

bicycle lanes (56%) and parking spaces (52%). As such, the demand for more greenery in the cities does not appear to be as strong as in France but is nevertheless a highly valued feature. In terms of satisfaction with the current condition of smaller urban green spaces in the city, 22% of Polish respondents were either somewhat or very dissatisfied, compared with 54% who were satisfied.

#### A BALANCED CHANGE?

Judging from our Polish respondents' answers, green spaces in Poland are undergoing balanced changes: one third of the respondents feel that their part of the city has become less green in the last 10 years, one third feel that it has become more so, and one third feel that it hasn't changed. When looking to the future of green spaces, however, this balance shifts slightly, as more people (39%) believe there will be less green space in their area rather than more (32%).

## COUNTRY PROFILE: POLAND

Population: 38 million
Degree of urbanization
2009\*: 61%

Projected degree of urbanization 2050\*: 74%

#### 10 YEAR GREEN SPACE BALANCE

O %

The 10 year green space balance refers to the difference in percentage points of respondents in Poland reporting that their part of the city had become more green over the last ten years (33%) compared to those who believed it had become less green (33%).

## CURRENT GREEN SPACE SITUATION

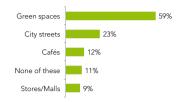
Green spaces are an important feature of the urban landscape. Among Polish respondents, 51% wished for more green areas in the city, placing it third after parking spaces in our list. Green spaces are also important as third places in the city, it is the most popular place to go in the city to be creative. (n=470)

#### THE IDEAL CITY IS GREENER

| 1 | Bicycle lanes   | 56% |
|---|-----------------|-----|
| 2 | Parking spaces  | 52% |
| 3 | Green areas     | 51% |
| 4 | Cultural venues | 23% |
| 5 | Public squares  | 16% |

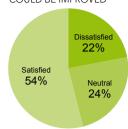
What would you rather have more of in the city today? % of respondents choosing each alternative. Multiple responses allowed.

#### **GREEN SPACES ARE CREATIVE SPOTS**



If you need a place in the city where you can be creative/get new ideas, where do you usually go? % of respondents choosing each alternative. Multiple responses allowed.

#### PARK MAINTENANCE COULD BE IMPROVED



How satisfied would you say that you are in general with the condition of small parks or green spaces in your part of the city?

#### REASONS FOR VISITING AND IMPORTANT FEATURES

To go for a walk and relax are the main reasons for visiting urban green spaces according to our Polish respondents. Dog mess was the most frequently named factor that deter from visiting green areas, and safety as the most important feature of urban parks. (n=470)

## TOP 5 REASONS FOR VISITING GREEN SPACES

| 1 | Go for walk        | 53% |
|---|--------------------|-----|
| 2 | Relax              | 46% |
| 3 | Peace and quiet    | 43% |
| 4 | Get fresh air      | 42% |
| 5 | Escape city stress | 36% |

What would you say are the main reasons why you visit green spaces? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 REASONS FOR AVOIDING PARKS

| 1 | Dog mess              | 50% |
|---|-----------------------|-----|
| 2 | Unsafe                | 42% |
| 3 | Vandalised            | 40% |
| 4 | Lack of places to sit | 39% |
| 5 | Poorly maintained     | 33% |

What are the main factors that would dissuade/deter you from visiting a park/garden? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 MOST IMPORTANT PARK FEATURES

| 1 | Safe to visit   | 50% |
|---|-----------------|-----|
| 2 | Well maintained | 45% |
| 3 | Places to sit   | 44% |
| 4 | Easy to access  | 40% |
| 5 | Varied nature   | 40% |

In your opinion, what are the most important thing about public parks/ gardens? % of respondents choosing each alternative. Multiple responses allowed.

#### THE VALUE OF GREEN SPACES AND CURRENT TRENDS

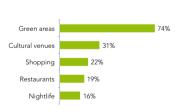
Many studies point to the important part played by green spaces in attracting people to a city and making its neighborhoods more attractive. 40% of respondents in Poland reported green spaces as an important factor to consider when choosing what city to live in; 74% reported being willing to pay more to live in an area with good green spaces. (n=470)

## GREEN SPACES IMPORTANT FOR CITY APPEAL

| 58% |
|-----|
| 9%  |
| 40% |
| 47% |
| 18% |
|     |

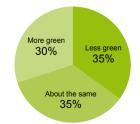
If you could chose to move to a new city anywhere in the world, which of the following factors do you think would especially influence your choice of city? % of respondents choosing each alternative. Multiple responses allowed. Selection of benchmarkfactors

#### THE VALUE OF GREEN SPACES



In general, would you be willing to pay a higher price for a house/apartment if it was located in an areas with good... % of respondents answering 'yes, probably' 'yes, definitely'.

#### THE GREEN SPACE BALANCE





A CLOSER LOOK AT URBAN GREEN SPACES IN:

## Russia

#### A MULTIFACETED URBANIZATION

Although the main urbanization movement in Russia took place in the 1950s and 70s, the share of people living in urban areas which today stands at 73% is expected to grow to roughly 83% by 2050.

As noted by experts, there are several simultaneous urbanization trends taking place in Russia at the moment. Most prominent is movement from smaller cities larger ones – Moscow, whose population has risen by 30% in the last 20 years, being the largest – as well as the ongoing movement of people from eastern parts of the country to western; both of which present the country with great challenges and opportunities.

#### MAINTENANCE A MAJOR CHALLENGE

Urban green spaces in Russia have faired rather poorly over the last decades, according to experts; they identified poor maintenance and safety as two major problems. Still, demand remains high among our respondents, with 47% naming green spaces as a feature they would

like to see more of in the city. Poor maintenance clearly remains a challenge; Russian espondents in our survey were by far the most dissatisfied with the current condition of smaller green spaces in their cities, with 38% reported being either somewhat or very dissatisfied.

#### **FUTURE UNCERTAIN**

With a clear majority (44%) of Russian respondents experiencing a decline in the amount of green spaces in their cities over the last ten years, the green space balance in Russia does not appear to favor greenery at the moment. Hopefully, the situation will change in the years ahead; at the moment, Russian respondents do not seem entirely convinced: 42% believed their city areas would be less green twenty years from now, compared with 33% who believed they would be greener.

## COUNTRY PROFILE: RUSSIA

Population: 143 million Degree of urbanization 2009\*: 73%

Projected degree of urbanization 2050\*: 83%

## 10 YEAR GREEN SPACE BALANCE

-16 %

The 10 year green space balance refers to the difference in percentage points of respondents in Russia reporting that their part of the city had become more green over the last ten years (28%) compared to those who believed it had become less green (44%)

## CURRENT GREEN SPACE SITUATION

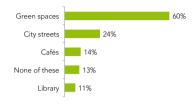
Green spaces are an important feature of the urban landscape. Among Russian respondents, 47% wished for more green areas in the city, placing it third after bicycle lanes in our list. Green spaces are also important as third places in the city, it is the most popular place to go in the city to be creative. (n=570)

#### THE IDEAL CITY IS GREENER

| 1 | Parking spaces  | 57% |
|---|-----------------|-----|
| 2 | Bicycle lanes   | 53% |
| 3 | Green areas     | 47% |
| 4 | Public squares  | 34% |
| 5 | Cultural venues | 18% |

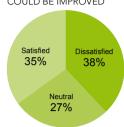
What would you rather have more of in the city today? % of respondents choosing each alternative. Multiple responses allowed.

#### **GREEN SPACES ARE CREATIVE SPOTS**



If you need a place in the city where you can be creative/get new ideas, where do you usually go? % of respondents choosing each alternative. Multiple responses allowed.

#### PARK MAINTENANCE COULD BE IMPROVED



How satisfied would you say that you are in general with the condition of small parks or green spaces in your part of the city?

#### REASONS FOR VISITING AND IMPORTANT FEATURES

To go get fresh air and go for a walk are the main reasons for visiting urban green spaces according to our Russian respondents. Poor maintenance was the most frequently named factor that deter from visiting green areas, and peace and quiet the most important feature of urban parks. (n=570)

## TOP 5 REASONS FOR VISITING GREEN SPACES

| 1 | Get fresh air   | 57% |
|---|-----------------|-----|
| 2 | Go for walk     | 53% |
| 3 | Peace and quiet | 40% |
| 4 | Relax           | 36% |
| 5 | Just hang out   | 36% |

What would you say are the main reasons why you visit green spaces? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 REASONS FOR AVOIDING PARKS

| 1 | Poorly maintained     | 57% |
|---|-----------------------|-----|
| 2 | Too far away          | 46% |
| 3 | Lack of places to sit | 42% |
| 4 | Vandalised            | 36% |
| 5 | Unsafe                | 34% |

What are the main factors that would dissuade/deter you from visiting a park/ garden? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 MOST IMPORTANT PARK FEATURES

| 1 | Not too noisy   | 52% |
|---|-----------------|-----|
| 2 | Places to sit   | 49% |
| 3 | Varied nature   | 46% |
| 4 | Easy to access  | 44% |
| 5 | Well maintained | 42% |

In your opinion, what are the most important thing about public parks/ gardens? % of respondents choosing each alternative. Multiple responses allowed.

#### THE VALUE OF GREEN SPACES AND CURRENT TRENDS

Many studies point to the important part played by green spaces in attracting people to a city and making its neighborhoods more attractive. 46% of respondents in Russia reported green spaces as an important factor to consider when choosing what city to live in; 74% reported being willing to pay more to live in an area with good green spaces. (n=570)

## GREEN SPACES IMPORTANT FOR CITY APPEAL

| Job market           | 43% |
|----------------------|-----|
| The nightlife        | 5%  |
| Green spaces         | 46% |
| Social atmosphere    | 55% |
| Architectural beauty | 29% |

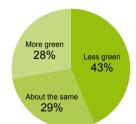
If you could chose to move to a new city anywhere in the world, which of the following factors do you think would especially influence your choice of city? % of respondents choosing each alternative. Multiple responses allowed. Selection of benchmarkfactors.

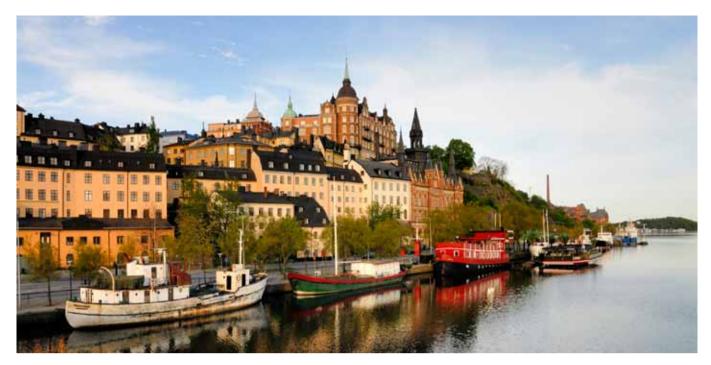
#### THE VALUE OF GREEN SPACES



In general, would you be willing to pay a higher price for a house/apartment if it was located in an areas with good... % of respondents answering 'yes, probably' 'yes, definitely'.

#### THE GREEN SPACE BALANCE





A CLOSER LOOK AT URBAN GREEN SPACES IN:

# Sweden

#### THREE CENTERS OF URBANIZATION

Roughly 85% of its population in cities, Sweden together with France and Australia tops the list of most urbanized countries in this report.

Just as France will continue to urbanize,
Sweden's share of people living in urban areas is projected to reach 90% by 2050.

In Sweden, as noted by experts, urbanization is mainly concentrated in the three large areas of Stockholm, Gothenburg and Malmoe. Stockholm metropolitan area, for instance, is estimated to exhibit 40% of the country's total population expansion over the next 20 years. At the same time, many smaller villages and towns are seeing their populations decline, presenting Sweden with regional challenges similar to those of many other European countries.

#### **GREEN SPACES TOP THE LIST**

Traditionally, city expansion in Sweden has followed a path of suburbanization: cities sprawl larger but not necessarily denser.

Despite relatively less dense cities, the existence of green spaces was still the most

frequently mentioned feature that Swedish respondents wanted to see more of in their areas. In terms of the current condition of smaller green spaces in the city, Swedes on the whole appear to be relatively satisfied: 12% of respondents reported being somewhat or very dissatisfied, whereas 64% reported being somewhat or very satisfied.

#### A WORRISOME DEVELOPMENT

With so much of the country's urbanization occurring in the three major areas, it is, perhaps, not surprising that the current green space balance should look bleak. When urban dwellers were asked whether their part of the city had become more or less green over the last ten years, 40% of respondents believed it had become less green, compared with only 18% of respondents seeing more green. Judging from responses, the future prospects are worrisome as well; 54% of Swedish respondents believed that their cities would be less green twenty years from now, with only 24% believing the opposite.

## COUNTRY PROFILE: SWEDEN

Population: 9.5 million

Degree of urbanization 2009\*: 85%

Projected degree of urbanization 2050\*: 90%

## 10 YEAR GREEN SPACE BALANCE

-22 %

The 10 year green space balance refers to the difference in percentage points of respondents in Sweden reporting that their part of the city had become more green over the last ten years (18%) compared to those who believed it had become less green (40%).

## CURRENT GREEN SPACE SITUATION

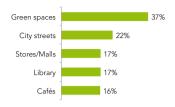
Green spaces are an important feature of the urban landscape. Among Swedish respondents, 50% wished for more green areas in the city, placing it at the top of our list. Green spaces are also important as third places in the city, it is the most popular place to go in the city to be creative. (n=530)

#### THE IDEAL CITY IS GREENER

| 1 | Green areas     | 50% |
|---|-----------------|-----|
| 2 | Apartments      | 33% |
| 3 | Bicycle lanes   | 24% |
| 4 | Parking spaces  | 24% |
| 5 | Cultural venues | 20% |

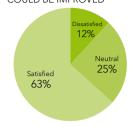
What would you rather have more of in the city today? % of respondents choosing each alternative. Multiple responses allowed.

#### GREEN SPACES ARE CREATIVE SPOTS



If you need a place in the city where you can be creative/get new ideas, where do you usually go? % of respondents choosing each alternative. Multiple responses allowed.

#### PARK MAINTENANCE COULD BE IMPROVED



How satisfied would you say that you are in general with the condition of small parks or green spaces in your part of the city?

#### REASONS FOR VISITING AND IMPORTANT FEATURES

To go for a walk and get fresh air are the main reason for visiting urban green spaces according to our Swedish respondents. Lack of safety was the most frequently named factor that deter from visiting green areas, and easy of access the most important feature of urban parks. (n=530)

## TOP 5 REASONS FOR VISITING GREEN SPACES

| 1 | Go for walk        | 60% |
|---|--------------------|-----|
| 2 | Get fresh air      | 46% |
| 3 | Exercise           | 39% |
| 4 | Enjoy surroundings | 37% |
| 5 | Peace and quiet    | 31% |

What would you say are the main reasons why you visit green spaces? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 REASONS FOR AVOIDING PARKS

| 1 | Unsafe            | 73% |
|---|-------------------|-----|
| 2 | Vandalised        | 68% |
| 3 | Poorly maintained | 61% |
| 4 | Dog mess          | 50% |
| 5 | Too far away      | 45% |

What are the main factors that would dissuade/deter you from visiting a park/garden? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 MOST IMPORTANT PARK FEATURES

| 1 | Easy to access                  | 53% |
|---|---------------------------------|-----|
| 2 | Well maintained                 | 51% |
| 3 | Safe to visit                   | 50% |
| 4 | Not too noisy                   | 39% |
| 5 | Large enough for jog/<br>stroll | 31% |

In your opinion, what are the most important thing about public parks/ gardens? % of respondents choosing each alternative. Multiple responses allowed.

#### THE VALUE OF GREEN SPACES AND CURRENT TRENDS

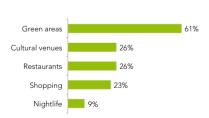
Many studies point to the important part played by green spaces in attracting people to a city and making its neighborhoods more attractive. 37% of respondents in Sweden reported green spaces as an important factor to consider when choosing what city to live in; 61% reported being willing to pay more to live in an area with good green spaces. (n=530)

## GREEN SPACES IMPORTANT FOR CITY APPEAL

| Job market           | 42% |
|----------------------|-----|
| The nightlife        | 6%  |
| Green spaces         | 37% |
| Social atmosphere    | 47% |
| Architectural beauty | 18% |

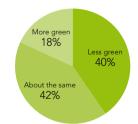
If you could chose to move to a new city anywhere in the world, which of the following factors do you think would especially influence your choice of city? % of respondents choosing each alternative. Multiple responses allowed. Selection of benchmarkfactors.

#### THE VALUE OF GREEN SPACES



In general, would you be willing to pay a higher price for a house/apartment if it was located in an areas with good... % of respondents answering 'yes, probably' 'yes, definitely'.

#### THE GREEN SPACE BALANCE





#### A CLOSER LOOK AT URBAN GREEN SPACES:

## UK

#### LONDON CALLING

The UK is already highly urbanized today – to a degree of roughly 80%. Nevertheless, the share of people living in urban areas is expected to reach 88% in forty years.

For the UK as a whole, the main challenge pertaining to urbanization, as experts point out, is mainly that of uneven growth. Up until now, London and other cities in the southeast have grown at a steady rate, whereas cities in other parts have seen their population decline. How best to manage this situation will likely persist as important topic in the years ahead. That the larger London-area will continue to be an important mega-region in the future is clear.

#### INTEREST IN GREEN SPACES ON THE RISE

As this report repeatedly shows, the UK – and especially London – is home to many new and exciting green space ideas and a growing interest in green planning. Ostensibly, this trend is reflected in our survey results; when asked what features they would like to see more of in the city today, green spaces were the

most frequently mentioned feature among UK respondents by a good margin. When asked about their satisfaction with the current state of smaller urban green spaces in the city, 17% reported being dissatisfied; and 65% reported being satisfied.

#### **EFFECTS ARE YET TO BE SEEN**

If the rise in interest in green spaces is reflected in a greater demand for them among respondents, the same cannot be said for a green space balance. Only 11% of UK respondents believed that their part of the city had become greener in the last ten years, compared with 26% who believed the opposite. Looking ahead, only 27% believed that their cities would be greener in twenty years; 50% believed they would not be greener.

## COUNTRY PROFILE: UK

Population: 62 million
Degree of urbanization
2009\*: 80%

Projected degree of urbanization 2050\*: 88%

## 10 YEAR GREEN SPACE BALANCE

-15 %

The 10 year green space balance refers to the difference in percentage points of respondents in the UK reporting that their part of the city had become more green over the last ten years (11%) compared to those who believed it had become less green (26%).

## CURRENT GREEN SPACE SITUATION

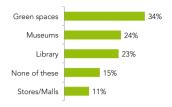
Green spaces are an important feature of the urban landscape. Among UK respondents, 59% wished for more green areas in the city, placing it at the top of our list. Green spaces are also important as third places in the city, it is the most popular place to go in the city to be creative. (n=510)

#### THE IDEAL CITY IS GREENER

| 1 | Green areas       | 59% |
|---|-------------------|-----|
| 2 | Parking spaces    | 35% |
| 3 | Public squares    | 26% |
| 4 | Bicycle lanes     | 24% |
| 5 | Museums/Libraries | 19% |

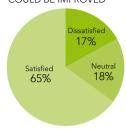
What would you rather have more of in the city today? % of respondents choosing each alternative. Multiple responses allowed.

#### GREEN SPACES ARE CREATIVE SPOTS



If you need a place in the city where you can be creative/get new ideas, where do you usually go? % of respondents choosing each alternative. Multiple responses allowed.

#### PARK MAINTENANCE COULD BE IMPROVED



How satisfied would you say that you are in general with the condition of small parks or green spaces in your part of the city?

#### REASONS FOR VISITING AND IMPORTANT FEATURES

To go for a walk and get fresh air are the main reason for visiting urban green spaces according to our UK respondents. Vandalism was the most frequently named factor that deter from visiting green areas, and safety the most important feature of urban parks. (n=510)

## TOP 5 REASONS FOR VISITING GREEN SPACES

| 1 | Go for walk        | 55% |
|---|--------------------|-----|
| 2 | Get fresh air      | 50% |
| 3 | Enjoy surroundings | 42% |
| 4 | Peace and quiet    | 36% |
| 5 | Relax              | 33% |

What would you say are the main reasons why you visit green spaces? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 REASONS FOR AVOIDING PARKS

| 1 | Vandalised        | 69% |
|---|-------------------|-----|
| 2 | Unsafe            | 67% |
| 3 | Dog mess          | 57% |
| 4 | Poorly maintained | 53% |
| 5 | Too noisy         | 36% |

What are the main factors that would dissuade/deter you from visiting a park/ garden? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 MOST IMPORTANT PARK FEATURES

| 1 | Safe to visit                   | 48% |
|---|---------------------------------|-----|
| 2 | Well maintained                 | 43% |
| 3 | Large enough for jog/<br>stroll | 37% |
| 4 | Easy to access                  | 35% |
| 5 | Visually appealing              | 35% |

In your opinion, what are the most important thing about public parks/ gardens? % of respondents choosing each alternative. Multiple responses allowed.

#### THE VALUE OF GREEN SPACES AND CURRENT TRENDS

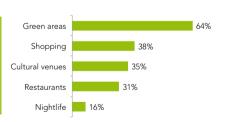
Many studies point to the important part played by green spaces in attracting people to a city and making its neighborhoods more attractive. 33% of respondents in UK reported green spaces as an important factor to consider when choosing what city to live in; 64% reported being willing to pay more to live in an area with good green spaces. (n=510)

## GREEN SPACES IMPORTANT FOR CITY APPEAL

| 3%  |
|-----|
| 20% |
| 38% |
| 33% |
| 41% |
|     |

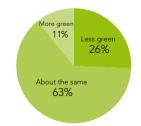
If you could chose to move to a new city anywhere in the world, which of the following factors do you think would especially influence your choice of city? % of respondents choosing each alternative. Multiple responses allowed. Selection of benchmarkfactors.

#### THE VALUE OF GREEN SPACES



In general, would you be willing to pay a higher price for a house/apartment if it was located in an areas with good... % of respondents answering 'yes, probably' 'yes, definitely'.

#### THE GREEN SPACE BALANCE





A CLOSER LOOK AT URBAN GREEN SPACES:

## **USA**

#### A NEW WAVE OF URBANIZATION

USA is a highly urbanized country, with approximately 82% of Americans living in urban areas – a share set to rise to 90% by mid-century. According to experts, the US might be heading into a phase of intensified urbanization in the years to come, as the trend of suburbanization, very influential in the last four decades, now show signs of slowing or even reversing. Among the areas experiencing the fastest rate of urbanization today are the cities falling within the mega-region often referred to as BosWash; stretching from Boston in the north to Washington in the south, as well as cities such as Phoenix and Atlanta.

#### SATISFIED BUT WANTING MORE

On the whole, interest in urban green spaces appears to be on the rise in the US, both among experts and the general public. As this report shows, Chicago and New York are already at the forefront of urban green space innovation. Nevertheless, in our survey, green spaces were still the most frequently mentioned feature that

American respondents (52%) wanted to see more of in their cities. In terms of satisfaction with the condition of smaller green areas in their particular region, US responses were among the most positive, with 68% being either fairly or very satisfied with the current condition.

#### A POSITIVE TREND

With regard to current green space balance, the US, along with China, were the only two countries in the survey for which more respondents reported experiencing a growing rather than declining amount of green spaces in their cities over the last 10 years – a tentative cause for optimism. American respondents on the whole were also casually optimistic about the future, with more people agreeing with the proposition that their cities would contain more green spaces twenty years from now (41%) rather than fewer spaces (36%).

## COUNTRY PROFILE: USA

Population: 313 million

Degree of urbanization

2009\*: 82%

Projected degree of urbanization 2050\*: 90%

## 10 YEAR GREEN SPACE BALANCE

+6%

The 10 year green space balance refers to the difference in percentage points of respondents in the US reporting that their area of the city had become more green over the last ten years (33%) compared to those who believed it had become less green (27%).

## CURRENT GREEN SPACE SITUATION

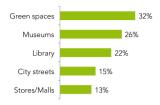
Green spaces are an important feature of the urban landscape. Among US respondents, 52% wished for more green areas in the city, placing it at the top of our list. Green spaces are also important as third places in the city, it is the most popular place to go in the city to be creative. (n=580)

#### THE IDEAL CITY IS GREENER

| 1 | Green areas       | 52% |
|---|-------------------|-----|
| 2 | Parking spaces    | 36% |
| 3 | Public squares    | 22% |
| 4 | Museums/libraries | 21% |
| 5 | Cultural venues   | 20% |

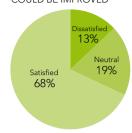
What would you rather have more of in the city today? % of respondents choosing each alternative. Multiple responses allowed.

#### **GREEN SPACES ARE CREATIVE SPOTS**



If you need a place in the city where you can be creative/get new ideas, where do you usually go? % of respondents choosing each alternative. Multiple responses allowed.

#### PARK MAINTENANCE COULD BE IMPROVED



How satisfied would you say that you are in general with the condition of small parks or green spaces in your part of the city?

#### REASONS FOR VISITING AND IMPORTANT FEATURES

To go for a walk and get fresh air are the main reason for visiting urban green spaces according to our US respondents. Lack of safety was the most frequently named factor that deter from visiting green areas, and good upkeep the most important feature of urban parks. (n=580)

## TOP 5 REASONS FOR VISITING GREEN SPACES

| 1 | Go for walk        | 44% |
|---|--------------------|-----|
| 2 | Get fresh air      | 44% |
| 3 | Enjoy surroundings | 42% |
| 4 | Exercise           | 39% |
| 5 | Peace and quiet    | 39% |

What would you say are the main reasons why you visit green spaces? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 REASONS FOR AVOIDING PARKS

| 1 | Unsafe            | 68% |
|---|-------------------|-----|
| 2 | Poorly maintained | 61% |
| 3 | Vandalized        | 59% |
| 4 | Dog mess          | 39% |
| 5 | Too far away      | 39% |

What are the main factors that would dissuade/deter you from visiting a park/garden? % of respondents choosing each alternative. Multiple responses allowed.

## TOP 5 MOST IMPORTANT PARK FEATURES

| 1 | Well maintained       | 51% |
|---|-----------------------|-----|
| 2 | Safe to visit         | 50% |
| 3 | Visually appealing    | 42% |
| 4 | Easy to access        | 41% |
| 5 | Large enough for jog/ | 37% |

In your opinion, what are the most important thing about public parks/ gardens? % of respondents choosing each alternative. Multiple responses allowed.

#### THE VALUE OF GREEN SPACES AND CURRENT TRENDS

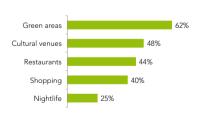
Many studies point to the important part played by green spaces in attracting people to a city and making its neighborhoods more attractive. 25% of respondents in the US reported green spaces as an important factor to consider when choosing what city to live in; 62% reported being willing to pay more to live in an area with good green spaces. (n=580)

## GREEN SPACES IMPORTANT FOR CITY APPEAL

| Green spaces         | 25% |
|----------------------|-----|
| The nightlife        | 10% |
| Social atmosphere    | 28% |
| Job market           | 58% |
| Architectural beauty | 19% |
|                      |     |

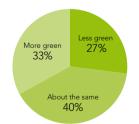
If you could chose to move to a new city anywhere in the world, which of the following factors do you think would especially influence your choice of city? % of respondents choosing each alternative. Multiple responses allowed. Selection of benchmarkfactors

#### THE VALUE OF GREEN SPACES



In general, would you be willing to pay a higher price for a house/apartment if it was located in an areas with good... % of respondents answering 'yes, probably' 'yes, definitely'.

#### THE GREEN SPACE BALANCE





## Appendix a: Urban green spaces defined

#### DEFINITION OF URBAN GREEN SPACES:

Spaces in the city that consist predominantly of unsealed, permeable, "soft" surfaces such as soil, grass, shrubs and trees. 8

At the highest level of abstraction, the urban landscape can be divided into two entities: structures, and the spaces in-between.

For urban planners, the spaces separating structures and building in the city are usually divided into two main subcategories: grey and green. Grey spaces are, roughly speaking, spaces in the city covered with hard surfaces like stone, concrete or asphalt; typical examples would be a city street, parking lot, or town square. Green spaces, on the other hand, are defined as those spaces in the city made up "predominantly of unsealed, permeable, 'soft' surfaces such as soil, grass, shrubs and trees" 8.

Using such a broad definition, it is clear that urban green space is a family name for a broad variety of green areas in the city: it covers everything from public parks and private backyards in the suburbs; to trees lining a street; to green areas next to railroad tracks; to urban farmlands and gardens. This multiplicity presents a challenge, as there are few reliable sources available for comparing the amount of green space in different cities. A universal

definition has not been agreed upon, so defining and measuring green space has often been left in the hands of each city.

This report has focused primarily on those green spaces in the city that are designed as amenities – that is, for enjoyment, whether aesthetic, recreational or something in between. Typical examples of these kinds of green spaces include parks, playgrounds, pocket gardens and private backyards. Thus, other types of green spaces typically found in urban environments – farmland, wetlands, woodlands, etc. – have received relative less attention.

This is not to say that these green spaces have diminished importance – from a biodiversity standpoint, they are vital.

Nevertheless, amenity green spaces may stand as greatest in immediate interest to city dwellers. In addition, they arguably fill the most versatile function in terms of physical and social impact on cities' atmosphere. This renders them especially sensible to focus on in a report such as this, aimed at the interested public.

## Appendix b: The importance of urban green spaces: Now and then

## Key dates in the history of urban green spaces

When the cities of Europe and America began to expand rapidly in the wake of the Industrial Revolution, the pressing need for green spaces soon became obvious to city planners and city dwellers alike. It was as a means of combating the ills that a rapid and unplanned urbanization inevitably brought -overcrowding, pollution, poor health and hygiene - that many of the great parks and open green spaces that we still enjoy today came about. Still, these measures in many ways proved to be too little too late, and by the turn of the 19th century, many of Europe's wealthy city-folk had emigrated to the suburbs

in hopes of reconnecting with nature and a healthier lifestyle.

Today, as the world looks forward to another era of rapid urbanization, green spaces now face risk and uncertainty. Although almost two hundred years later, the myriad services that green areas provide are much better understood, the temptation to exploit them remains; in many cities around the world, the amount of green space has been shrinking rapidly for years. In Jakarta, Indonesia, the year 1965 saw green areas making up more than 35% of Jakarta's land area; 2009 had green

#### 3000 BC

In Mesopotamia, during the rule of king Gilgamesh, city parks are reported to be the source of great civic pride for urban Sumerians.

#### 1764

The Englishman James Hargreaves invents the 'Spinning Jenny', one of the sparks igniting the industrial revolution in Europe and the beginning of a mass migration to

#### 1789

One of the world's first public parks, Munich's Englische Garten, is commissioned by the Elector Carl Theodor, as a way of keeping the populace calm in (French) revolutionary

#### 1829

The English landscape gardener John Claudios Loudon publishes his book "Hints on **Breathing Places** for the Metropolis", a book that is to have great impact on public garden design all over Europe in the following decades. As the title suggests, it focuses on the function of parks as oases for the city.

#### 1850

In the wake of the French revolution, many formerlyaristocratic parks, such as Bois de Boulogne and Parc Monceau, are now turned into public parks under the supervision of Baron Haussmann, as a way of letting more light and air into the city landscape.

#### 1873

Frederick Law Olmsted wins the design competition for New York's Central Park in 1858, which is opened for the public in 1873. The purpose of the park was to function as a haven from the noise and chaos of city life in face of a rapidly expanding city population.

#### ≈18th century

Most of the grand parks and urban green spaces to be found in the cities of Europe are private privileges for aristocrats and royalties only.

#### 1779-1785

The first theoretical work in which the concept of "public parks" is dealt with is published by the Danish-German professor of Philosophy Christian Cay Hirschfeld, in his work 'Theorie der Gartenkunst.' Hirschfeldt emphasizes the importance of proving places in the city where workers can escape urban stress on their free days. He also emphasizes their importance in providing citizens with fresh air.

#### 1800

Roughly 17% of Europeans live in urban areas.

#### 1833

In England, The Select Committee on Public Walks issues a report calling for the creation of more parks and green spaces in London in order to combat, among other things, overcrowding, squalor, ill-health and lack of morals.

#### 1860

New York City's population reaches 1.2 million.

spaces accounting for only 9.3%. This is a most unfortunate development.

Luckily, though, many cities appreciate the importance of preserving the presence of nature in the urban environment. If the history of urban planning teaches us anything, it is that a city cannot continue to strive without its green spaces, and focusing on them in the long run should prove beneficial. As such, let's make sure that we don't repeat the mistakes of our predecessors.

Some key dates in the history of urban green spaces <sup>2</sup>.



#### 1984

Environmental psychologist Roger Ulrich publishes a groundbreaking paper in Science Magazine, indicating that patients with a window overlooking green spaces recover faster from surgery than patients lacking such a view. Five years later, psychologists Rachel and Stephen Kaplan publish their book "The Experience of Nature," outlining their theory of the restorative effects of nature on the human psyche.

#### 2009

New York's High Line Park is opened. Two years later, the park is made available for virtual strolls online in Google Street View.

#### 2050

69% of the world's population is expected to live in urban areas

#### 1898

Inspired in part by George Cadbury's factory town Bournville designed to give ordinary workers access to their own yard and fresh air - the Englishman Ebenezer Howard publishes his now-classic Garden Cities of Tomorrow, a book which sets off a great suburban movement in reaction to the poor living conditions in the

#### 1922

Le Corbusier, a father of modernist architecture. presents his visions for the "Ville Contemporaine" or contemporary city. Intended to house 3 million inhabitants, his city followed a vertical growth model using new materials such as steel and and leaving room for green spaces in the city despite denser population.

#### 1880

Roughly 50% of Europeans now live in urban areas.

#### 1910

New York City's population stands at 4.8 million.

#### 1950

29% of the world's population lives in urban areas.

#### ≈**2000**

Facing rapid urbanization, cities such as Ho Chí Minh City in Vietnam report having lost more than 50% of green space areas to urban developments over the course of only 10 years.

#### 2008

A majority of the world's population resides in urban areas.

## Appendix c: A word on methodology

This report is comprised of two parts: one qualitative and one quantitative.

For the qualitatively-oriented research segment, we have mainly relied on academic, governmental, professional, as well as journalistic sources. Materials are listed under the *Recommended Further Reading* section (see: References) When deemed of sufficient quality, material from individual homepages or blogs is included as well. We have also received valuable input from professionals in the field, their names listed in the References section of the report.

For the quantitatively-oriented survey segment, we used web-based panels to contact roughly 500 urban respondents aged 18 and older in each of the nine countries that appear in the report. These respondents where then asked to fill out a web-based questionnaire which had been translated into their native language. In order to qualify as an urban dweller in this survey, the respondent had to report

living in a city of more than 200 000 inhabitants, no further from the city center than its outskirts (in which roughly 10% of the respondents reported living – the other 90% residing nearer to the center). The sample has been weighted based on age-group data gathered from Eurostat and the US Census Bureau.

It should be noted that online panels are not always fully representative of a country's population at large – for instance, internet usage tends to vary between age groups. This is especially the case in countries where the overall level of internet penetration is comparatively low. Often, samples in these countries are somewhat biased towards citizens with higher education.

Furthermore, it should be mentioned that in multi-lingual surveys such as this, comparisons of results between countries should always be made responsibly, owing to possible "distortions" produced by translation and cultural divergence.

# Appendix d: References and acknowledgements

#### **END NOTES**

- European Cooperation In The Field of Scientific and Technical Research (COST), Green structure and urban planning, 2005, (p.15)
- More information on the historic dates presented here can be found in: European Cooperation In The Field of Scientific and Technical Research (COST), Green structure and urban planning, 2005
- 3. See: Preparing for China's urban billion, McKinsey Global Institute, March 2009
- See: How's Your City, Richard Florida, Basic Books 2008, Chapter 10
- 5. See: Mäklarspråket 2011, Bovision (Bovision.se)
- See: Fertile Ground for Community: Inner-City Neighborhood Common Spaces, American Journal of Community Psychology, Volume 26 (6), 1998
- See: Parks and Other Green Environments: Essential Components of a Healthy Human Habitat, National Recreation and Park Association, 2010
- 8. See: Improving Urban Parks, Play Areas and Green Spaces, Department for Transport, Local Government and the Regions, 2002

#### RECOMMENDED FURTHER READING

- Department for Transport, Local Government and the Regions, Improving Urban Parks, Play Areas and Green Spaces, 2002
- European Cooperation In The Field of Scientific and Technical Research (COST), Green structure and urban planning, 2005
- Florida, Richard, How's Your City, Basic Books 2008
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- Ståhle, Alexander, Compact sprawl: Exploring Public Open Space and Contradictions in Urban Density, KTH Architecture and the Built Environment, PhD Dissertation, 2008

- The Trust for Public Land, The Benefits of Parks: Why America Needs More City Parks and Open Space, 2006
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- Andrea Haase, Prof. Dr. Ing, Rainer Schmidt Landschaftsarchitekten, Munich (GER)
- Katarzyna Hodor, Cracow University Of Technology (POL)
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#### ABOUT HUSOVARNA GROUP

The Husqvarna Group is the world's largest producer of outdoor power products, including chainsaws, trimmers, lawn mowers, and garden tractors. It is the European leader in consumer irrigation equipment under the Gardena brand. The group is also one of the world leaders in cutting equipment and diamond tools for the construction and stone industries. The product range includes products for consumers as well as professional users. The group's products are sold in more than 100 countries.

#### HUSQVARNA'S PRODUCT OFFERINGS

Husqvarna's product offering covers a wide spectrum of applications for consumers and professional users within the following areas:

**Forestry** – chainsaws, clearing saws and accessories such as chains, blades, and protective clothing.

**Lawn and garden** – Walk-behind lawn mowers, garden tractors, riders and other wheeled products, as well as portable products such as trimmers, hedge cutters and leaf blowers – Irrigation products and garden tools for the consumer market under the Gardena brand.

**Construction** – machines and diamond tools for cutting concrete and stone.

#### BRANDS

The brands in Forestry and Lawn and garden are Husqvarna, Gardena, McCulloch, Jonsered, Flymo, Partner, Poulan Pro and WeedEater. The major brands in Construction are Husqvarna and Diamond Boart.

#### WWW.HUSQVARNAGROUP.COM

#### **ABOUT KAIROS FUTURE**

Kairos Future is an international research and consulting firm that helps companies understand and shape their futures. With a unique holistic approach to futures analysis, strategy, and change, we are a leading organization in Europe in our niche. Our head office is located in Stockholm and we have local offices and close collaboration with partners in about 15 markets.

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