NAPA





News from African Protected Areas

Nouvelles des Aires Protégées en Afrique N°102 November 2016

Edito

Geoffroy MAUVAIS PAPACO coordinator

Human stupidity

Albert Einstein is reported to have let us with these amazing words of wisdom: "Two things are infinite: the universe and human stupidity, and I'm not yet absolutely certain about the universe."

Too bad he is no longer with us, because we recently received confirmation of his insight. Well, still not regarding the Universe, in reality.

A few weeks ago, a young American girl, 12 years old, headed out to South Africa for a hunting party with her beloved daddy. The concept is fairly simple: just knock down as much local wildlife as you can, and this is a game she excels in. After tackling wildebeest, impala, zebra and a bunch of other species happily hopping around in the bush, she shot a male giraffe who - according to her but who would challenge her long expertise? - was old and no longer reproducing. That's certainly a sin justifying death! Well, this story should make us thing, and I invite all the aging readers of the NAPA to reconsider their position on procreation, if they want to continue to spend a good time on this earth.

Anyway, reason would dictate that having a few too many dollars in your pocket does not give you the right to massacre animals who, until then, grazed peacefully in other countries. Yet this did not cross her mind; she bragged about her achievements on Facebook, and as could be expected she drew the anger of many. Undoubtedly, sensitive people or

worst yet, perhaps old males on the decline fearing for their place in society now that procreative abilities had become the criterion for euthanasia? But please, make no mistake: she had a good justification stored in her wallet. The meat of the giraffe was to be used to feed orphans in the area! Gosh, this is quite something. Luckily for them, she came in person, with her gun, to save the local people who were until then desperately starving in the open. They probably had already been discussing with what sauce they would cook the giraffe if only some foreigner had the kindness to serve it to them on a plate. In fine, if one looks at this story again with the correct perspective, this young girl is like Mother Theresa – just a different style

However, the story does not say whether the fed orphans would perhaps have preferred to keep their old giraffe, in its original vertical position. After all, why would anyone ask them?

Shortly after, the video of a lion hunting day in South Africa (again) was released on YouTube. It wasn't any type of hunting: canned hunting. This involves tracking down a lion that has been bred for 4 or 5 years in captivity and released the day before, in an enclosure. The matter is quite simple: the animal is found, and killed. Seeing as the enclosure is small and the lion is tamed, the process hardly takes more than half an hour and you can even shoot your canned meat from the car to avoid strains or the effort to let go of your beer for a minute. Thousands of lions are cooked in that way each year. In the video, we think the climax has been reached when a so-called hunter, face covered by a cap, blows up a lioness that found refuge on a branch, like a wingless bird. And yet we



News from African Protected Areas – NAPA

N°102 African Protected Areas & Conservation – www.papaco.org

manage to sink further down when a young lioness is tracked down, carpeted in the den of a warthog. She's got frightened eyes and as a mean of recompense, receives two or three bullets in the head before being rooted out of her hole for the final family photo. The storyteller does not tell us, this time, if the meat was used to feed the surroundings' disabled; it does not really matter because, in all honesty, the video is enough to cut your appetite for a while.

It takes all sorts of people to make a world, doesn't it? But what kind of world are we talking about? How can we still, in 2016, find such practices: perfectly legal, perfectly accepted, totally assumed by those who provide them, those who buy them and those that let them happen? How can we reduce the lion to the condition of a domestic pheasant and give giraffes the status of a hot dog?

In the name of money. Quite simply. And because having money does not make you immune to stupidity, often quite the contrary. There are no limits ... Albert was right.

Read the article and watch the video on lion hunting on our Facebook page: www.facebook.com/IUCNpapaco





Our MOOC on protected areas management is online... now in English!

A new session of our **MOOC on PA management** has started on the **1st October**, on Coursera. More than **6,000 learners** have already joined the course, exchanging on the **forum** or in our **Facebook group** and building a new network of



News from African Protected Areas – NAPA

African PA lovers. It is **free** and the course is composed of **7 short modules** that have to be done **in 3 months** so you can do the course and pass the exams **at your own pace**.

It's not too late to register!

Feel free to **join** our community and register on **www.papaco.org**, page **trainings**.

Also join the group on: https://www.facebook.com/groups/167668443583415/

Urban Protected Areas Profiles and best practice guidelines

By Ted Trzyna, in collaboration with Joseph T. Edmiston, Glen Hyman, Jeffrey A. McNeely, Pedro da Cunha e Menezes, Brett Myrdal, Adrian Phillips and other members of the IUCN WCPA Urban Specialist Group - Craig Groves, Series Editor; Adrian Phillips, Volume Editor

This NAPA presents some extracts of the Guidelines n°22, developed by the World Commission on Protected Areas (WCPA) about urban Protected Areas, The guidelines are divided in three parts. Part 1 - context and concept, provides a brief context to the growing interest in urban protected areas and then explains what urban protected areas are, why they matter and how they are distinctive. Part 2 - profiles of urban protected areas, describes protected areas in 15 metropolitan areas around the world, taken as examples for learning lessons. Part 3 - best practice guidelines, is organized into four sections: protected areas and people; protected areas and places; protected areas and institutions; and the creation, promotion and improvement of urban protected areas. This NAPA summarizes the first part, presents the case of Nairobi National Park, in Kenya, as an illustration of the second part of the Guidelines and finally lists the 30 best practices that are proposed in part 3. The Guidelines are available in full on www.papaco.org, on page publication (pictures included in this NAPA comes from the guidelines).

1 – Context and concept

Ours has become a planet of urban dwellers in a very short time. Already, over half of humanity lives in urban areas. Two thirds will do so in the lifetimes of most people now living on Earth. This trend is already having profound consequences, for the environment and for people. Everywhere nature is being squeezed and people are losing contact with it. The implications are many and diverse, but they make the conservation of nature ever more urgent and often more difficult to deliver. It is this that makes urban protected areas a matter of crucial concern.

The United Nations estimate that only 30 per cent of people lived in towns and cities in 1950. This rose to 50 per cent by 2007. Between 2010 and 2030, the world's urban population is projected to increase from 3.6 billion to 5 billion, raising the proportion of urban dwellers to 60 per cent; it will be 67 per cent by 2050. Almost all this increase will take place in developing regions. Based on current trends, most of these new urban dwellers will live in overcrowded slums, often situated on marginal and dangerous land, without sanitation or easy access to clean water. According to the Cities Alliance, a of World Bank-based partnership official development agencies and global associations of local authorities, 'ignoring this policy challenge risks condemning hundreds of millions of people to an urban future misery. insecurity. of and environmental degradation on a truly awesome scale.'

Contrary to a commonly held belief, 'megacities' (urban agglomerations of 10 million inhabitants or more) account for less than four per cent of the world's population. Most urban dwellers live in settlements with fewer than half a million inhabitants. Some of the world's fastest growing cities have between one and five million people or are much smaller.

The reasons for this growing urbanization are complex. Rural to- urban migration and international migration account for most of it, but migration from cities to rural areas that then become urbanized also occurs. Wars can drive people into cities, but they can also have the opposite effect, depending on where people feel safer. Natural disasters can cause people to move out of cities, but these people may then contribute to urban growth elsewhere.

As the world urbanizes, the distinction between urban and rural becomes less meaningful. For centuries, city and countryside have been seen as opposites. Now, in much of the world, differences between urban and rural communities are becoming blurred as advanced technologies and the global economy penetrate areas formerly considered remote, as farming becomes ever more industrialized and as urban and rural areas become more linked and interdependent. One feature of this trend is that urban settlements now take many diverse forms.





Developing capacity for a protected planet

Best Practice Protected Area Guidelines Series No. 22



These global trends may be clear, but such aggregated data provides only crude measures. Moreover, these figures are based on national definitions of 'urban' that use different criteria, and on numbers that sometimes derive from outdated or questionable census data.

They also hide wide regional and national variations in the degree of urbanization and the speed at which it is growing. According to the United Nations Population Division (2011), the proportion of people living in urban areas in the Americas, Europe and Oceania already exceeds 70 per cent. Although the figures for Africa and Asia are currently much lower, 39 per cent and 44 per cent respectively, many cities in those regions will double their populations in the next 10 to 15 years.

There are pronounced differences among countries within regions. In Asia, the urbanization figure is 17 per cent in Nepal and 18 per cent in Sri Lanka, rising to 91 per cent in Japan and nearly 100 per cent in several Gulf countries. Rapidly urbanizing



China has just passed the half-way mark, at 51 per cent.

In Africa, the degree of urbanization ranges from 11 per cent in Burundi and 15 per cent in Malawi, to over 70 per cent in Algeria, Gabon, Libya and Tunisia. In the Americas, it is less than 45 per cent in Belize and 49 per cent in Guatemala, but more than 85 per cent in Argentina, Chile, Uruguay and Venezuela.

Almost all protected areas are affected by urbanization, whether they are in urban or more remote settings. In turn, protected areas can be used as a tool to limit or shape the growth of towns and cities. The pressures that urban areas exert on the natural world in general and protected areas in particular are exacerbated by the effects of climate change, especially more frequent and more intense weather events, and rising sea levels.



Los Angeles and the Verdugo Mountain

More intense weather events demonstrate the value of protected areas to cities. For example, the unprecedented monsoon rainstorm that dumped almost a meter of rain on Mumbai, India, in 2005, caused severe flooding and loss of life, but it could have been much worse had it not been for Sanjay Gandhi National Park.

Rising sea levels, combined with storm surges, will force migration to higher ground. Roughly a billion people live at sea level or just a few meters above it, and many of the world's cities are situated in coastal lowlands. As conditions worsen, where will these people go? How will their resettlement, guided or unguided, affect protected areas?

Rising seas will also submerge low-lying coastal protected areas in and near cities, making nature less accessible to urban residents and putting pressure instead on inland protected areas. As such coastal protected areas are destroyed, the buffering role that they can play in offsetting the effects of storm surges, for example, will be eroded, leaving urban populations more at risk.

The cities most immediately vulnerable to sea-level rise are Asian megacities sitting on subsiding river delta land. However, many other coastal cities throughout the world are vulnerable to flooding from storm surges, and will become uninhabitable well before they disappear underwater because of waterlogging and saltwater intrusion. More than words can tell, an interactive map posted by geology.com (2014) shows in graphic detail the inundations that would occur with quite small level global sea rises.

This is the context in which this guides focuses on urban protected areas. Geographically, politically and socially they are at the front line of the tensions between the natural world that humankind inherited from the past and the increasingly urban-dominated one, affected by a changing climate, that we are making for the future.

Urban protected areas are at the heart of the struggle to create more sustainable prospects for both nature and people. Their importance cannot be over-stated.

1.1 - Urban protected areas: What they are

We use the term 'urban protected areas' to mean protected areas in or at the edge of larger population centers. Each phrase or word needs further explanation:

A 'protected area' is defined by IUCN as 'a clearly defined geographical space, recognized, dedicated, and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.'



Tokyo

'Edge' is difficult to define exactly, because local situations vary. In this context, suburban areas are considered urban (the terms 'peri-urban', 'urban



fringe', and 'rural fringe' are also used to describe the zone immediately surrounding an urban area; where an urban area abuts wildlands, the term 'wildland-urban interface' is sometimes used).

A 'larger population center' for this purpose can be anything from a town to a 'megacity'. The words 'city' and 'town' are used to describe urban areas, rather than local government arrangements or their geographic jurisdictions. The IUCN definition of a protected area refers to the long-term conservation of nature. 'Nature' and 'natural' are terms that can have various meanings in urban contexts.

Conventional urban parks, with lawns, flowerbeds, playgrounds and sports fields, are not considered to be urban protected areas, although such places can be very useful in sustaining native animal species and connecting natural areas.

Urban protected areas have no formal recognition internationally, nor is there a global inventory of urban protected areas. The World Database of Protected Areas (WDPA-managed by the United Nations Environment Programme's World Conservation Monitoring Centre) includes many such areas, but does not identify them separately (although maps on WDPA's interactive website, www.protectedplanet.net, are helpful in identifying protected areas in and near urbanized places). However, a few national governments do identify urban protected areas: in Finland, for example, the Land Use and Building Act as amended in 2000 specifically authorizes designation of national urban parks that include 'natural areas important for the preservation of urban biodiversity'.



Hong Kong

In terms of IUCN's Protected Area Management Categories, most urban protected areas are recognized either as Category II (national park) or Category V (protected landscape or seascape).

However, there are urban protected areas in all six IUCN categories. In terms of other forms of



News from African Protected Areas – NAPA

international recognition, urban protected areas include marine protected areas, World Heritage sites, UNESCO Geoparks, Ramsar sites and biosphere reserves.

Urban protected areas are managed by various kinds of organizations:

• National governments. Most of the protected areas profiled in Part 2 of the Guidelines are administered by national protected area agencies.

• State or provincial governments in federal systems. Examples are the São Paulo Green Belt, managed by the Forest Institute of the State of São Paulo, Brazil; and Royal National Park near Sydney, managed by an agency of the Australian State of New South Wales.

• Local governments: Examples are the Claremont Hills Wilderness Park in the Los Angeles area, and the Edith Stephens Nature Reserve in Cape Town.

• Non-governmental organizations and local community groups: Examples are the London Wetland Centre, a project of the Wetlands and Wildlife Trust; and the Blue and John Crow Mountains National Park next to Kingston, Jamaica, which is managed for the national government by the Jamaica Conservation and Development Trust.

• Businesses: An example is the Irving Nature Park in Saint John, New Brunswick, Canada, which is owned and managed by J.D. Irving Limited, a large forestry and industrial firm.



Londres

1.2 - Impacts of urbanization on protected areas

Urbanization can have both positive and negative effects on protected areas and natural resources generally. On the positive side, concentrations of human population in cities can relieve pressure on more remote rural and natural areas, and result in economies of scale in such areas as energy, housing, transportation and solid waste reuse and recycling.

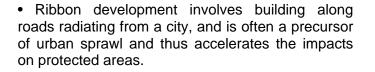
But the negative side is usually much more evident. Urbanization leads to the depletion of water and forests, whilst generating solid, liquid and gaseous wastes. Such a combination of consumption and pollution can impose burdens on distant ecosystems, as well as those nearby. Other impacts of urbanization on protected areas include: fragmentation of habitat, edge effects, noise, light, human-wildlife conflicts, introduction of invasive alien species, fire along the wildland-urban interface, crime and littering. These impacts, and how to avoid or minimize them, are discussed in Parts 2 and 3 of the Guidelines.



San Francisco

Different forms of urbanization have different kinds of impact on protected areas, for example:

• Urban sprawl involves building on unprotected rural land between a city and a protected area, sometimes growing to the extent that it surrounds the protected area.



- Urban intensification and infill make it more difficult to preserve or restore small natural areas that remain in the city.
- Coalescing 'megapolitan' regions occur when large-scale polycentric networks of metropolitan and smaller urban areas combine, often encompassing protected areas, and disrupting habitat connections and wildlife corridors.
- Tourism developments are usually enclaves, such as beaches or mountain resorts, but are commonly found near protected areas (indeed these areas are often promoted as attractions for tourists).
- Second-home and retirement developments are often located near or even within protected areas.
- Gateway communities are urban settlements that spring up at the access point to protected areas; some grow to become ugly, congested places that make it hard to appreciate the protected area next to them.
- Informal settlements, which are areas where groups of housing units have been constructed on land that the occupants have no legal claim to, sometimes encroach into protected areas.

A final comment: as urbanization continues apace, taking many different forms and spreading ever further outwards into lands that were previously unaffected by towns and cities, more and more protected areas become subject to its influence. So the number of urban protected areas as defined above is growing.



Cape Town



N°102 African Protected Areas & Conservation – www.papaco.org

1.3 - How urban protected areas are distinctive

Urban protected areas have problems and opportunities that are often different in kind or in scale from those affecting protected areas elsewhere. Thus they:

• Receive large numbers of visitors, including many who visit frequently, even daily;

• Receive many visitors who have not had experience of more remote protected areas or wilder forms of nature;

• Relate to urban populations that are typically much more diverse ethnically and economically than the rural or indigenous populations that usually live near or in other protected areas;

• Relate to numerous actors in the urban arena, such as: national, regional and local government agencies and elected officials; land-use planning authorities; and educational and cultural institutions;

• Are close to communications media and opinion leaders;

• Are threatened by urban sprawl and intensification of urban development, and often targeted for such urban infrastructure as roads, government buildings, garbage dumps and broadcasting antennae;

• Are disproportionately affected by crime, vandalism, littering, dumping and light and noise pollution that originate in adjacent urban areas; and

• Are subject to such urban edge effects as more frequent and severe fires, the creation and use of undesignated trails, water pollution, the introduction of invasive alien plants and animals, loss of foraging habitat for wildlife, conflicts between humans and wild animals, and invasion by, and abandonment of, domestic cats and dogs.



Los Angeles

1.4 - Why urban protected areas matter

All protected areas—including urban protected areas—make a vital contribution to the planet's health and to human wellbeing, by protecting endangered habitats and species, storing carbon and so forth. But, in a rapidly urbanizing world, urban protected areas are important in ways that set them apart from other protected areas. This is either because they perform functions that protected areas far from centers of population cannot perform; or because they do so to a far greater degree than is possible in other protected areas.

In summary, urban protected areas are important because they:

• Promote human health and well-being. Recreation in nature is good for people physically and emotionally. Nature is essential to people's wellbeing. Most significantly, children need direct experience of nature for healthy physical, intellectual and emotional development. Urban protected areas are especially well placed to help people in this way. They can also be useful as communal spaces for social interaction, promoting community cohesion.

• Help give urban people a sense of place. Urban protected areas connect urban people to their immediate surroundings, to their region, and to the Earth. They often define a city's identity.

• Build urban constituencies for nature conservation. Most people now live in urban areas and conservation increasingly depends on their support, as urban voters and urban donors. But urban people tend to have less and less contact with nature. People will value nature only if they know it. The wildest and remotest places on Earth, the most imperiled species on Earth will be protected only if urban people care about nature where they live.

• Offer opportunities to learn about nature and sustainability. Urban protected areas are often heavily used for nature study by schools, youth groups and adult groups, such as bird-watchers. Local universities use them for instruction and research. They offer excellent, accessible opportunities to demonstrate and promote good environmental behaviour.

• Provide ecosystem services. Urban protected areas commonly provide a range of ecosystem services. These include: supplying and storing



clean water; conserving marine and freshwater fisheries; reducing air pollution; and moderating the urban heat island effect, which causes urban areas to be significantly warmer than their surroundings.

• Bolster resilience to climate change. Resilience in this context refers to the ability of an ecosystem to maintain its functions—biological, chemical and physical—in the face of disturbance. Protecting and restoring natural areas in and around cities can enhance resilience to storms, flooding, sea rise, ocean storm surges and mudslides, thus protecting millions of people. In addition, there is much evidence that biodiversity itself enhances resilience of ecosystems.

• Contribute to green infrastructure within cities. Nowadays, many urban plans provide for a network of green spaces to improve the quality of urban living. Urban protected areas can be essential 'anchor points' in such networks, key parts of a green infrastructure that threads through the hard spaces and surfaces of the urban fabric.

• Support the local economy with income from tourism. Many urban protected areas attract substantial numbers of national and international tourists. They are not only attractive places to visit in their own right but they add to the tourist appeal of the nearby town or city.

2 – Nairobi National Park (one of the 15 examples presented in the Guidelines)

Within the city limits of Nairobi, Kenya's capital, 117-square-kilometre Nairobi National Park (IUCN Category II) is in the African savanna biome at an altitude of around 1,600 metres. It has an impressive array of wildlife species, including black rhinoceros (*Diceros bicornis*, IUCN Critically Endangered), lion, leopard, hyena, cheetah, buffalo, eland, wildebeest, zebra, hippopotamus, giraffe and diverse birdlife.



Nairobi National Park

The protected corner of a larger natural system The park marks the northern limit of seasonal wildlife migration from over 200,000 hectares of semi-arid savanna. Electric fences along the park's northern, western and eastern boundaries separate it from urban and industrial activity. In the south, the park is unfenced to allow free movement of wildlife as part of the broader ecosystem. During the dry months, herbivores — such as wildebeest — take refuge in the park, which is well-watered. During the rainy season they return to the plains, where food is normally plentiful and predators are more easily avoided.

In the main park area, only visits by motor vehicle are allowed. In 2011, the park had some 121,000 visits. Next to the main gate, exhibits provide pedestrian-accessible conservation education; these received 691,000 visits in 2011.

A fast-changing urban landscape

When it was established in 1946 as Kenya's first national park, Nairobi National Park was on the outskirts of what was then a city of some 120,000 people. Now Nairobi has a population of over 3 million, and urban pressures on the park have increased greatly. There is little open space now left in Nairobi's urban fabric, and the land around and sometimes within —Nairobi National Park is increasingly coveted for purposes other than conservation. Buffer zones have gradually been converted to such urban uses as informal housing and factories.



Giraffe in the park and Nairobi City behind

Decades of ad hoc development have severely degraded land along the park's eastern boundary. Access to its southeast corner has been closed because of toxic air pollution. Inside the park, infrastructure projects are increasingly proposed and sometimes built: an underground oil pipeline



was recently constructed just inside the park fence. A motorway is planned along a similar route.

Urban impact on the park and the larger ecosystem

With more and more urban development occurring near the park, Nairobi municipal planning and lawenforcement issues are now regularly on the agenda of park managers. These include issues related to squatters, industrial effluent and emissions, and poaching of wildlife and firewood. Although such pressures were at first concentrated on the park's urban-facing boundaries, recent years have also seen increased activity on the southern plains, well beyond Nairobi's current city limits.



Beyond wilderness... the City.

Here, where the protected area is open to seasonal wildlife migration, traditional pastoral practices have maintained the open space necessary for viable animal movements. But over time, incremental changes to land use have become an obstacle to this migration: the built-up areas of Ongata Rongai and Kitengela are expanding, and another proposed highway would connect them. This kind of development is progressively cutting off the park from the plains upon which its wildlife depends.

Relating beyond the protected area

Nairobi National Park is managed by the Kenya Wildlife Service (KWS), a parastatal organization responsible for all nationally protected areas in Kenya. Most land adjoining and near the park is subject to local government land-use regulation. Although no standing mechanism exists for consulting with planning authorities, KWS does comment regularly on individual proposals that could affect the park, and it proactively encourages planning initiatives that are aligned with its conservation aims. An example is the community-Kitengela-Isinya-Kipeto developed Land Use Management Plan, which calls for minimum plots of 24 hectares in much of the southern wildlife

dispersal zone. KWS is assisted by several partner organizations. For example, to discourage fence construction in the broad wildlife dispersal area south of the park, The Wildlife Foundation, a local NGO, pays pastoral landholders a nominal rent in exchange for their agreement not to subdivide parcels or otherwise impede the occasional passage of migrating wildlife.

Nairobi GreenLine, a partnership between KWS and the Kenya Association of Manufacturers, works to strengthen the park boundary and raise public awareness in order to 'shield' the park from 'land grabbers and polluters'.

In 2010, it began planting a 50-metre-wide 'forest' of indigenous trees along 30 kilometres of the park's urban edge; eloquently capturing the challenges facing this urban protected area, the billboards of this initiative boldly proclaim: 'The Nairobi National Park is under siege ... it's time to draw the line.'



A challenge : wildlife and humans conflicts...

Key lessons

• As urban protected areas are under constant pressure from urban development, consistent, high level support is needed for their protection.



• Parts of an urban protected area often adjoin rural lands; this land must be managed to support conservation within the park.

• The educational opportunities offered by urban protected areas are potentially immense.

3 – Best practice guidelines

In Part 3 of the guide, 30 guidelines are set out in four groups, with examples. These guidelines are relevant to any protected area, but especially those in or adjoining large population centers (*please refer to the guide for more info*):

Guidelines 1-11: Urban protected areas and people

1. Provide access for all; reach out to diverse ethnic groups and the underprivileged. For example, accommodate disabled people and choose words and symbols for compliance signs carefully.

2. Engender a local sense of ownership. Engage writers, artists and other creative people and draw on their works and ideas. Promote appreciation of cultural, as well as natural assets.

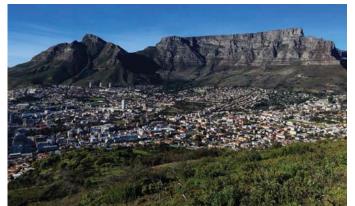


Table Mountain in Cape Town

3. Take advantage of volunteers and support groups. Tap into the large numbers of urban volunteers who can include many highly motivated and well-educated people.

4. Communicate carefully and use a range of communication technologies. In engaging with different kinds of audiences, listen carefully and tailor messages to each. Consider the benefits of using websites, blogs, social media and mobile apps, as well as print publications.

5. Demonstrate, facilitate and promote good environmental behaviour. Provide information about the causes and consequences of climate change. Encourage energy efficiency, energy and water conservation, and the reduction, reuse and recycling of materials.

6. Demonstrate, facilitate and promote the health benefits of contact with nature and of good eating habits. Help people understand that spending time in nature improves physical and mental health. Make available nutritious, local and sustainable fresh food.

7. Prevent littering. Draw on the results of local research on littering behaviour. Clean up litter frequently and provide plenty of containers.

8. Prevent and prosecute crime against people and property. Work closely with local law-enforcement agencies. Dispute the attitude that destruction of habitat is a 'victimless crime'. Combat vandalism, including graffiti.

9. Reduce human-wildlife interaction and conflict; keep aware of emerging infectious diseases. Help people protect themselves from predators and seek to maintain a balance between predators and their wild prey. Encourage a respectful attitude toward wildlife. Help people understand that degraded habitats encourage the transmission of diseases between other animals and humans.

10. Control poaching. Enforce laws, participate in interagency anti-poaching efforts and understand the role of organized crime. Provide alternative sources of edible and medicinal plants where possible.

11. Control invasive species of animals and plants. Realize that the main pathways by which invasive alien species invade new territory are urban. Survey lands and waters regularly to detect new invasions. Participate in local and national partnerships for prevention, early detection, eradication and control.

Guidelines 12-17: Urban protected areas and places

12. Promote connections to other natural areas. Cooperate with other public agencies and NGOs to contain or guide urban sprawl and create and maintain buffer zones and corridors that connect to other natural areas and rural lands.





Mumbai

13. Help infuse nature into the built environment and break down the cultural barriers between the 'natural' and the 'urban'. Participate in: region-wide nature conservation coalitions; projects to develop comprehensive local biodiversity strategies; and efforts to protect, restore and introduce natural elements in the built environment.

14. Control encroachment. Keep vigilant, enforce the law, seek help from local authorities and enlist the cooperation of local people.

15. Monitor and manage water. Keep aware of water quantity and quality trends and projections due to climate change, and work closely with those who share responsibility for water management.

16. Manage wildfires. Act aggressively to contain fires that threaten human life and property, control fires that threaten natural species and ecosystems, work closely with those responsible for fire prevention and control in neighbouring urban areas, and keep aware of wildfire trends and projections due to climate change.

17. Reduce impacts of noise and artificial nighttime light; keep aware of research on electromagnetic radiation. Promote appreciation of natural sounds and the night sky.

Guidelines 18-22: Urban protected areas and institutions

18. Cooperate with agencies that have shared or adjoining jurisdictions. Consider setting up formal or informal structures to facilitate coordination, and making written agreements on managing specific problems. 19. Cooperate with institutions that have complementary missions. Encourage and help natural history museums, zoos, aquaria and botanic gardens to provide information and exhibits about nature and conservation challenges in their regions.



Marseille and the Calanques National Park

20. Cast a wide net for advocates and allies. Engage with neighbours, support them whenever possible and seek allies from new sectors.

21. Cooperate with universities in training managers for urban protected areas; facilitate use of these areas for academic research and advanced learning. Help disseminate and archive research results.

22. Learn from others' experience with collaboration; pay careful attention to structure and process, as well as substance. Take advantage of people with entrepreneurial skills and experts in convening and negotiation.

Guidelines 23-30: Promoting, creating and improving urban protected areas

23. Promote and defend urban protected areas. Understand their importance for conservation nationally and globally, as well as locally. Tailor and convey this message to different constituencies.

24. Work to make urban protected areas national and global conservation priorities. Include them in conservation strategies and protected area system plans.

25. Create and expand urban protected areas. Examine possible locations and work with land-use planning authorities to include protected areas as part of projected urbanization.

26. Promote rules and organizational cultures that respect the differences between urban and more



remote protected areas. Educate conservation colleagues about these differences.

27. Recognize that political skills are critical to success, strengthen them and build political capital. Improve staff political skills through training and mentoring. Organize visits and events for local leaders.



Taipei

28. Seek funding from a wide range of sources. Draw from the full range of funding sources available to support protected areas generally, as well as sources unique to a metropolitan area.

29. Take advantage of international organizations and exchanges. Participate in them and draw on their resources as appropriate.

30. Improve urban protected areas through research and evaluation. Develop research agendas and help scholars to understand that urban protected areas are every bit as much proper protected areas as are more remote national parks and reserves.

Conclusion: Urban protected areas and the future of protected areas

As urbanization continues apace, taking many different forms and spreading ever further outwards into lands that were previously unaffected by towns and cities, more and more protected areas become subject to its influence. So the experience that has hitherto been gained in long-established urban protected areas, and the corresponding concepts that have been developed there, will be increasingly important elsewhere. Every one of these lessons is therefore growing in importance in the management of protected areas generally, and urban protected areas may be ahead in the development of solutions.

More on www.papaco.org



www.iucn.org

A buffalo in Nairobi NP

and

www.papaco.org

NAPA – CONTACTS

geoffroy.mauvais@iucn.org beatrice.chataigner@iucn.org marion.langrand@iucn.org Program on African Protected Areas & Conservation PAPACO - Program Officer PAPACO – Program Officer

The opinions expressed in this newsletter do not necessarily reflect those of IUCN



News from African Protected Areas – NAPA