This volume has been published as a milestone, accessible to the wider public, on the occasion of the 40th anniversary of the World Heritage Convention. *World Heritage: Benefits Beyond Borders* is a thematic collection of case studies of World Heritage sites providing an understanding of their outstanding universal value in the context of sustainable development.

The publication is cross-disciplinary in scope, a meeting point for natural and social scientists, researchers and practitioners, professionals and community representatives. The twenty-six case studies represent a global spread of constructive and engaging examples. They have been selected on the principle of representativeness: outstanding universal value; inscription criteria; economic, social and environmental sustainability; inscriptions as natural, cultural and mixed sites; landscape as well as scientific and industrial heritage; and a regional balance of examples from around the world taking into consideration environmental, linguistic and cultural diversity.

Each case study assesses what is important for sustainable development with regard to the World Heritage site concerned; the management framework required for ensuring and enabling sustainable development and community engagement; benefits to local communities and ecosystems; lessons for sharing with other World Heritage sites; and the anticipated way forward in bringing together local and neighbouring communities through the environmental, economic and social dimensions of sustainability. As far as possible, evidence-based benefits are presented by the authors, who have written in the spirit of the call for transformations by the UNESCO Director-General: ‘integrated cooperation mechanisms and more participatory governance structures for culture’, ‘deeper statistical understanding of the importance of the cultural
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sector to development’ and ‘greater awareness-raising about the cultural dimension of development’.¹

The case studies are based on both published and unpublished material, as each is a critical reflection based on a synthesis of existing sources. The authors come from a range of culturally and linguistically diverse backgrounds. The first voice and idiom of each text has been ensured as well as possible, in the spirit of the participatory democracy that has become at once aspirational and quintessential in the implementation of the Convention. The value of the contributions is beyond the content, perspectives, methods and benefit-sharing illustrations. Readers are urged to further scope the possibilities for the safeguarding of the outstanding universal value of World Heritage sites in promoting sustainable economic, social and environmental development, cross-cultural understanding, and valuing heritage through both qualitative and quantitative indicators and seamless engagement to further benefits to communities beyond the site borders.

There is currently no publication of this type dealing with the issue of World Heritage and sustainable development through case studies. It will complement the existing literature on World Heritage which focuses on specific types of sites or specific issues, and will provide a broader, multi-issue context for understanding World Heritage. One of the strengths of the volume is its emphasis on a more holistic and integrated view, linking World Heritage to the role that local communities play in its management and protection, and to issues of ecosystem sustainability, management obstacles and possibilities, and the maintenance of biodiversity, as well as linguistic and cultural diversity.

The case studies have been grouped into five themes that address the concerns of safeguarding the outstanding universal value of World Heritage sites in the 21st century. One of the major challenges in the original drafting of the Convention, as well as in the current implementation, is to bring nature and culture under the same umbrella. Considerable progress has been made in bridging the nature / culture divide in heritage conservation. Illustrative case studies are presented under the title *Bridging Nature and Culture*.

Several World Heritage sites are concerned with the genesis of urban centres dealing with the history and development of particular complexes. They also deal with the process of urbanism covering the organic evolution and continuation of the urban centre itself. In the coming decade we will be crossing another major threshold in the history of humanity since the emergence of the first urban settlements in Mesopotamia and western Asia over five millennia ago. More than

¹ Points taken from speech by Irina Bokova at Diversity of Cultural Expression: Ministerial Forum of the Asia-Pacific Region, Dhaka (Bangladesh), 9 May 2012.
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Half the population of the world will be living in cities and towns. Globalization and the rapid growth of the world economy are accelerating the pace of urban development. In this context the safeguarding of the outstanding universal value of sites has come under severe pressure. Case studies presented under the title *Urbanism and Sustainable Heritage Development* illustrate a range of approaches to the conservation and sustainable development of World Heritage sites.


The harmonization of soft law and hard law in the international field of standard setting for culture and heritage is crucial to ensure cooperation and coordination and economies of scale in the implementation by States Parties, INGOs and NGOs. In meaningful and sustainable community engagement at World Heritage sites the living heritage of stakeholder communities and their taking ownership is crucial for safeguarding the outstanding universal value of the sites, hence the case studies on *Living Heritage and Safeguarding Outstanding Universal Value*.

Finally, in the effort to promote a people-centred approach to conservation and to balance it with a site-centred approach, readers are urged to appreciate the benefits to local communities that are often not immediately visible, especially at large sites. Selected case studies are brought together under the title *More than the Monumental*.

The journey of four decades is without an end. While much has been achieved, with almost a thousand sites on the World Heritage List, the challenges are diverse and the achievements lead along multiple pathways. While inscription is a strategy with shared responsibility, conservation is an ongoing process. The various approaches to implementation of the World Heritage Convention, the most popular of the suite of UNESCO Conventions, have been strategic, innovative and inspirational. The commitment of States Parties to the Convention is commendable and the sense of ownership by local stakeholder communities has been heartening, as illustrated in the range of case studies compiled in this volume. As frequently emphasized, benefits from World Heritage status must accrue to local populations. The realization of this goal means transformations in heritage conservation that include local communities in social, economic and environmental sustainability.
Bridging Nature and Culture

The past four decades have witnessed a paradigm shift in the way the gulf between nature and culture has been bridged by managers and local communities in the conservation of World Heritage sites. In fact, the World Heritage Convention itself is the fundamental unifying framework for natural and cultural heritage conservation and this was further underscored by the World Heritage Committee, which adopted, in 2005, a unified set of World Heritage criteria following a first expert meeting on the subject in 1998. In according the respect due to global cultural diversity and different world views, the stakeholders have come to develop and practise a holistic ethic of conservation in bringing together people and their heritage across the binary of nature / culture divide. The range of case studies in this chapter illustrates this transformation. The local knowledge systems and communities practising heritage conservation on the ground have historically dealt with both nature and culture, often taking a systems approach, and they continue to do so.

Djoudj National Bird Sanctuary (Senegal), in particular, has witnessed the implementation of new mechanisms that put local communities and their integrated knowledge of nature and culture at the centre of government conservation priorities and concerns.

The overall economic value of the Great Barrier Reef (Australia) and its adjoining catchment area has been estimated to exceed AU$5.4 billion per annum and generates some 66,000 jobs, mostly in tourism. Over 220 Traditional Owners have undertaken compliance training, which has led to greater knowledge and awareness of marine compliance issues and, importantly, an increased feeling of empowerment by Traditional Owners managing sea country.

In Škocjan Caves (Slovenia), during a major annual festival, community members and cave managers present their conservation work and organize guided tours. The festival has become a joint activity of the park...
management and the community to promote local production, encourage the use of local resources and revive traditional methods and customs.

In the Socotra Archipelago (Yemen), many plants are now being screened for medicinal properties, which have been used by local people for centuries, leading to a vast ethnobotanical knowledge that is deeply embedded in the local language.

In the Vega Archipelago (Norway), as early as the 9th century, tending eider ducks was reported to be one way that people made a living. The site was the core area for this tradition. Women played a key role, so World Heritage status also celebrates their contribution to down production.
The close links between the lifestyles of local communities and natural resources have in recent decades led many policy-makers in Africa to review outdated management strategies adopted for the conservation and sustainable use of ecosystem services. In many countries, such as Senegal and Mauritania, the creation of protected areas in landscapes shared by local communities has been a source of conflict between the communities and government extension officers who hitherto relied on ‘top-down’ forms of management. Increasingly, stakeholder populations have viewed such actions as dispossession of livelihoods and disruption of access to the sustaining and socio-cultural services provided by the protected areas.

Senegal and Mauritania, in particular, have witnessed the implementation of new mechanisms that put local communities at the centre of government conservation priorities and concerns. In 1996, the introduction of national decentralization policies has allowed for the transfer of natural resource management to local communities. In the specific case of the Senegal River, this impetus resulted in the creation in 2005 of the Transboundary Biosphere Reserve of the Senegal River Delta (RBTDS).
Dating from the colonial period when Saint-Louis, former capital of French West Africa (1895–1958), was based at the mouth of the Senegal River, a range of hydro-agricultural infrastructure projects was developed with a view to improving agricultural production (in particular for the intensive planting of peanuts and other cash crops), and moderating the effects of successive droughts in the region. Most recently, in 1986, the Djama dam was built to control and moderate the hydrological regime of the Senegal River, as well as to increase the availability of fresh water needed for irrigated agriculture. Prior to the introduction of the upstream dam, river flow depended entirely on rainfall and flooding cycles, and could not be regulated.

Under the natural hydrological regime, salt-water intrusion previously extended as far as 200 km inland from the mouth of the Senegal River, during the dry season; contrasted with high levels of flash flooding during the rainy season (negatively affecting the Island of Saint-Louis, also listed under the World Heritage Convention for its cultural values). However, while beneficial in many respects, the Djama dam also resulted in unanticipated ecological impacts on the Djoudj/Djawling delta ecosystem, most notably through the proliferation of invasive aquatic weeds which today constitute one of the main threats to the habitats of wildlife and the outstanding universal value of the World Heritage site.
Natural and cultural values of the transboundary ecosystem

Following a lengthy political and institutional process involving actors ranging from the governments of both countries, representatives of civil society, and development partners, the RBTDS was created in 2005 with a total area of 641,768 ha. The RBTDS is characterized by a diversity of ecosystems along with a complex of wetland areas which together host significant birdlife. The transboundary ecosystem within the RBTDS encompasses Djoudj National Bird Sanctuary (the core zone of the UNESCO World Heritage site, and a wetland of international significance under the Ramsar Convention), Réserve de Ndialé, Réserve de Gueumbeul, Langue de Barbarie and the wildlife reserve of Chatt Boul (on the Senegalese side); and Djawling National Park (on the Mauritanian side). The shared ecosystem between the two countries is separated by the Senegal River and connected by a network of artificial dykes and ecological corridors to allow for the migration of fauna from one side to the other.

The delta is known particularly for the presence of an estimated 1.5 million birds including a number of migratory birds (including large flocks of flamingos and pelicans) which spend the winter in Africa. Terrestrial fauna is composed of reptiles (turtles, snakes, lizards) and mammals (warthogs, jackal, monkeys). The range of fish includes both freshwater and estuarine species. Several species of amphibians and crustaceans are also observed. The protected areas of Saint-Louis Marine Park and the Langue de Barbarie are also home to important nesting sites for marine turtles (i.e. leatherback turtle, Dermochelys coriacea; green turtle, Chelonia mydas; and loggerhead turtle, Caretta caretta).

Flora contains stands of Acacia nilotica, Prosopis and Tamarix as well as several economically useful fibre species such as Sporobolus robustus, used by women for the production of local fine hand-woven mats (which are sought after across the region). The local craft industry is directly linked to the development of natural resources using customary practices and traditional ecological

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3 The RBTDS includes 562,470 ha of terrestrial and 79,298 ha of maritime areas. This covers an area of 186,908 ha on the Mauritanian side and 454,860 ha on the Senegalese side.
knowledge (TEK) derived from artisanal processing, including leather goods such as bags, shoes and souvenirs.

The main current threats to biodiversity, following the commissioning of the Djamah dam, have resulted from the permanent availability of fresh water (i.e. which is no longer marked by natural annual cycles of intermittent fresh and salt-water flooding) leading to the proliferation of invasive aquatic plants, such as *Typha australis*, *Pistia stratiotes* and *Salvinia molesta*. The human management of water and modification of drainage flows into different channels have disrupted and greatly reduced bird habitats. Some areas of the Djoudj and Djawling have become clogged by dense invasive weeds, and cannot be accessed in order to achieve effective monitoring and viewing of wildlife.

The new hydrological facilities have also considerably reduced traditional areas of pasture, resulting in an increase of incursions by livestock into the Djoudj and Djawling parks’ core zones. Although access to these areas is prohibited, poverty and a lack of alternative sources of income have also led local populations to frequently practice illegal fishing, and the illegal collection and use of firewood. In addition, inadequate investment in the park infrastructure has also been one of the reasons for technical inefficiency in managing the national park.

The city of Saint-Louis continues to provide important opportunities for tourism, with a vibrant hotel sector. However, despite the opportunities for camping and ecotourism the local communities have yet to take full advantage of this sector in order to diversify their economic base. The city of Keur Macène, which is the largest on the Mauritanian side, has more limited infrastructure, so local populations depend mainly on Saint-Louis as a regional market. Community identity in the villages on both sides of the river is composed of common ethnicity composed of Wolof, Moors and Fulani, who share matrimonial and