

**Kosrae State
Biodiversity Strategy and Action Plan**

August 2004

Tofol, Kosrae
Federated States of Micronesia

Introduction

The State of Kosrae is among the four states making up the Federated States of Micronesia, a young independent nation. Prior to this newly established relationship (Compact of Free Association) between the U.S. and this nation, the FSM, was once a U.N. Trust Territory under the U.S. administration. During this era, Kosrae was included as one of the islands under Pohnpei District. Not until 1977, Kosrae Island has become a district joining the other 3 such as, Pohnpei, Chuuk, and Yap. Later on when the new agreement was established, Kosrae has joined the other three districts, each now called an island State forming a new independent nation called the Federated States of Micronesia.

The State of Kosrae differs geographically from the other three FSM States in that it is comprised of only the one high volcanic island and is with the smallest population of the States. The island has a roughly triangular shape totaling about 27,500 acres but the population lives mainly along the coastal areas primarily due to the basaltic mountains that cause the inner part of the island to be very inaccessible.

The population of 7,686 makes up the four municipalities of Lelu, Malem, Tafunsak and Utwa. Several light industries exist on the island and includes some construction company sites, gravel quarries, power plant, relatively small petroleum/oil/lubricants storage tank farm, airport and seaport and an aquaculture site. Several hotels service the tourist industry with 100 to 200 visitors per month. The majority of the workforce is in the public sector just like the other States but much of the population is still very dependent on the land and sea for food. However, as the population grows and demand for western lifestyle increases, there is increasing pressures on the resources of the island which needs to be managed accordingly to last for this generation and those to come. A coordinated approach to biodiversity conservation through an agreed upon plan, can contribute to the overall environmental health of the island. The people of Kosrae therefore outline below an implementation plan that should be used in conjunction with the national actions, the land use plan and other resource management strategies to address priorities for the conservation and sustainable use of its biological resources.

1.1. Background

Of the many environmental threats facing many places on Earth today, including the State of Kosrae, perhaps none is more serious than the loss of biodiversity—the variety of species, ecosystems, and ecological processes that forms the basis for continued life on Earth. The problem of biodiversity loss is more significant and more urgent simply because of its irreversibility. Once a species is extinct, it is lost forever. Moreover, because humankind is so dependent on so-called “ecosystem services” provided by biodiversity, the degradation or loss of habitat and species poses a serious risk to humans. Thus the significance of nurturing the Kosrae State biodiversity through maintaining its habitats and ecosystem is vital to the ongoing social, economic, cultural development and sustaining of its rich traditions.

1.2 Action Plan Development

The Kosrae State add-on phase of the State BSAP strategy development was formulated during a 5 month period beginning from Feb. 15 to July 30, 2004. The process went through activities such as meetings, workshops and other awareness programs to enhance public and individual knowledge with regards to biodiversity conservation. The State BSAP follow up process mainly focuses on the priorities of people for better sustainable use of the State’s biodiversity, conservation, preservation, and protection of the state’s ecosystem. The process of developing the priorities of Kosrae State was very involved and community based. Previous community consultation processes had been undertaken prior to this process and were incorporated as part of this action plan. However, for the development of this plan specifically, all relevant agencies and community groups were consulted. Because there is only one island in the State, all the four municipalities were very much a part of the consultation process whereby community meetings were held with technical support of the government agencies responsible for or involved in resource management. The communities had the opportunity to discuss at length the problems and threats to biodiversity and to reflect on what components of biodiversity are valuable to them. During the State BSAP meetings and workshops, the key persons with other government agencies deliberately discussed the proposed actions during the previous community meetings and came up with priorities to conserve or better manage the island’s biodiversity.

The main offices and agencies contributing to the consultation process includes the Governor's Office, the Development Review Commission, Department of Agriculture, Land and Fisheries, the Municipal Offices, NGO's, Senior citizen, Dept. of Education, Commerce and Industry, Community Affairs, Public Works, Attorney's Office, and the Resource Management Committees (RMCs) in the communities. Others were also involved in one way or another. The collective effort resulted in the prioritization of biodiversity issues as well as raising awareness of the issues and motivating the people to reapply their own efforts to address these issues.

The Action Plan outlines the State's vision, objectives and priority areas it wishes to address in order to better conserve and protect its biodiversity. Generally, the State wishes to involve all members of the community and community groups to work with the relevant agencies in its efforts relating to biodiversity conservation and management.

2. Kosrae State Circumstances

Location	163 degrees East, 5 degrees north
Population	7686
% of total FSM Population	7.2%
Population Density (per sq.mi.)	179
Relevant Areas	Land Area 43 sq. miles
# of island	1 high island
Land Area for Agriculture	4 sq. miles
Forest Area	25 sq. miles
Ocean Area	560 sq. miles
GDP (1966)	15.6 million
GDP per Capita	2.414% (2003)
Share of Services in GDP	6.9 million
Share of Industry in GDP	0.05 million
Share of Agriculture in GDP	1.3 million
% Exports of Imports	22.9
Main Exports	Citrus, banana
Rainfall	120" per year June-Oct. wet season

2.1 Government

The State Government of Kosrae is the smallest in the Federation and is also structurally similar to the FSM National Government with three separate branches of government: executive, legislative, and judicial, with a Constitution similar to that of the United States. The Governor heads the Executive Branch, with cabinet members heading the main government department and offices. Directors or Administrators head semi-autonomous agencies such as the Kosrae Island Resource Management Authority under the guidance of Boards of Directors. KIRMA reviews development projects to ensure minimum impact to the environment.

Agencies and departments involved in natural resource management and sustainable use include the Departments of Agriculture, Land and Fisheries, Kosrae Island Resource Management Authority, Department of Commerce & Industry, Kosrae Community Action Program, Kosrae Conservation and Safety Organization, and COM-FSM Land Grant Research. At the Community level, each municipality has formed Resource Management Committees comprised of community volunteers with the motivation to assist in the conservation and sustainable use of the resources of the island.

Coordination amongst relevant agencies for environmental purposes include the Development Review Process where a Board of Commissioners meets to advise on projects up for review, and the NBSAP consultation network where KIRMA works with relevant community groups including Resource Management Committees in each municipality.

2.2 Cultural Values

Kosraean traditional culture was highly influenced by the missionaries in the mid 19th century. Today, religious activities influence much of the lives of Kosraeans. Western influence has also taken its course on the island. Import of material and ideas of the west are causing continued erosion of the already influenced traditional culture of Kosrae. The primary language spoken is Kosraean with English language being the secondary.

3. Biodiversity of Kosrae State

Biodiversity is important because we depend on other species and the ecosystems they create. Biodiversity gives us ecosystem services such as fresh air, clean water, and productive soils that we need to survive. It gives us food and natural products that keep us healthy, provides economic benefits that maintain a healthy economy, and provides natural beauty that we enjoy.

Kosrae State biodiversity is significant, and is the foundation of the island's long-term economic self-sufficiency. The island contains over 100 plant species, at least 2 of which are found nowhere else on Earth. Marine life is abundant, with over 250 species of fish and 180 species of coral. Special Consideration Areas cover the different ecosystem types to be managed and conserved. These include mangroves, freshwater wetlands, upland forests, ocean water from the reef crest to 19 kilometers (12 miles) out, the shoreline and reef, and highly erodible soils and stream banks. Areas of Biological Significance are specific areas to be delineated and protected, and include Mangrove Reserves, Shoreline Erosion Hazard Areas, Rivers and Water Resources, Mouths of Rivers, the Trochus Sanctuary, the Green Snail Sanctuary, and Cultural and Historical Sites. The island is facing increasing threats to these identified areas and other natural resources. With these increasing threats urgent action is needed to protect and conserve the island biodiversity.

3.1 The Marine Environment

The marine environment for the island of Kosrae is typical of a tropical volcanic island with common habitats including passes, channels, fringing reefs, shallow reef flats, terraces, submerged reefs, slopes, reef holes, embayment, quasi estuaries, sea grass beds, mangroves, mud and sand flats. There are 4 main harbors nestled amongst the mostly mangrove-ringed island dotted with several strands of sandy beaches and surrounded with a fringing reef. The reef flats that surround Kosrae are considered to be among some of the most pristine remaining in the world, and are home to over 180 species of corals and over 250 species of fish (Land Use Plan, 2003).

According to the Division of Fisheries, over 335 species of fish were found, 250 of which were considered as food. Also on this survey, 180 coral species were found; 13 of these species are soft coral and over 150 are hard coral. The

endangered marine species include turtles, lobsters, trochus, sea cucumbers, crabs, corals, and giant clams. Other declining fish species identified by the Fisheries Division include the bump head parrot fish, mullet fish, rabbit fish, napoleon wrasse, and unicorn fish.

The State owns all marine areas out to 12 miles, but residents are able to freely harvest the marine resources within, except in the trochus and Utwa-Walung Marine Park sanctuaries. The trochus sanctuary is located on the reef in the Okat area. Recommendations have been made to expand this sanctuary to include the entire mangrove area directly adjacent to the existing boundaries. No logging or development activity should occur within this area except for maintenance of the two historical canoe channels. This trochus sanctuary also extends protection to other species of marine life as identified in the Shoreline and Reef Management Strategy. The Utwa-Walung Marine Park sanctuary spans a large portion of the mangrove and reef area on the southern side of the island. The Utwa-Walung Marine Park sanctuary area covers 421 hectares. This area encompasses the entire area designated as the Utwa Walung Marine Park. It is bordered by Molsron Tukunsru to the west, Infal Yesron to the east, the 10 meter elevation contour to the north, and the in-shore corals to the south. In this particular area there is no harvesting of mangroves on the ocean-side strip of land of the mangrove channels and in Utwa Lagoon.

3.2 The Terrestrial Environment

The terrestrial environment is comprised mostly of upland forest, which along with agroforest, account for close to 70% of the island's vegetation. The interior of the island is characterized by high, steep, rugged mountains rising to 2064 ft. at Mt. Finkol, and covered with dense tropical rainforests.

The steep uninhabitable mountains account for about 70% of the total land area (43 square miles), so virtually all of the population lives in the five coastal villages. Several sandy beaches break through the mangrove shoreline to provide easy access to the narrow surrounding lagoon. The mangrove swamps cover 14% of the island.

Some native species of Kosrae include the dusky white eye and the horsfieldia nunu amongst others. The only remaining stand of *Terminalia carolinensis* trees in the world, locally known as Ka, is found in Kosrae. This area, comprised of the Ka stand and mangrove forest, was identified by The Nature Conservancy as

a high priority Area of Biological Significance. Endangered species include the fruit bat and the Micronesian pigeon. Some of the common domestic animals include pigs, dogs, and chickens. Invasive species include the African snail, white flies, frogs, rats, and monitor lizards.

Although the island has a small proportion of land available for agriculture, Kosrae State is able to export citrus and banana to the neighboring islands. Recently, the citrus canker has affected this very lucrative export crop. The citrus, palm trees, and taro plant have always been very precious to the people of Kosrae; the flora is a source of medicine and is used to build shelter and canoes.

The latest survey showed over 100 plant species; 45 of these are food crops, and include fruits, vegetables, aroids and tubers.

4. Trends: Kosrae State has taken environmental management and threats facing the biodiversity of its ecosystems as serious concerns. Both environmental management and highlighted threats will be discussed in the following sections.

4.1 Environmental Management

The environmental management efforts of Kosrae State are known throughout the region, especially for its coordinated efforts to manage issues such as biodiversity. Relevant government agencies are primarily responsible for environmental management, and collaborate to formulate and enforce regulations, monitor and protect the resources, including biological resources, and assist the public in exploring sustainable use of the island's limited resources.

One recent major development in the area of environmental management in Kosrae is the creation of the Kosrae Island Resource Management Authority (KIRMA), which is the agency mandated to protect the environment. It has been an effective and aggressive arm in minimizing environmental damage associated with rapid development on the island. This Authority oversees a process to review all development projects on the island to ensure minimum environmental damage. This Authority implemented a Land Use Plan under which several strategies exist addressing components of natural resource conservation. Its purpose is to guide and provide regulations protecting the use of natural

resources. For instance, the Marine Resources Act of 2000 contains several regulations concerning development activities affecting the environmental quality of fisheries waters as well as pollution damage to the reef and fishing methods. This Land Use Plan assists decisions concerning environmental impact statements and overall assessments of development proposals and permit applications. It further assists in decisions concerning government programs and use of government resources supporting the development and management of natural resources, and helps land owners and investors ensure the least possible negative impacts in their use of resources. The development review process also ensures collaboration between relevant agencies as well as stakeholders. The DRC works with recently established Resource Management Committees, which are community groups comprised of volunteers addressing a variety of environmental issues in their own communities. An NGO has also been recently chartered to focus primarily on environmental issues. These positive trends show that the general public's awareness of conservation issues has improved particularly due to the many activities coordinated by the different government agencies in cooperation with NGOs, communities, and partners from overseas. Despite the positive developments in addressing environmental issues, the threats and constraints continue to be a challenge to the efforts of the Government and NGOs.

4.2 Highlighted Threats and Constraints of Kosrae State Biodiversity

Generally, the people of Kosrae consider anthropogenic threats to be of utmost concern. Together with increase in population, the threats recognized include over harvesting or overexploitation of resources, use of inappropriate/destructive harvesting methods, pollution, habitat modification and destruction, climate change, and introduction of alien invasive species. For the marine sector, net fishing and use of chemicals are causing the most problems, but there is concern that new technologies used for fishing may be even more destructive. Also of concern is the health of some specific species being commercialized or exported, such as the mangrove crabs. Coral dredging, landfill in the mangrove areas, and boat anchorage are causing marine habitat modification while oil spills, littering, and land-based sources of pollution including waste dumps in mangrove areas are the main pollution concerns.

For the terrestrial areas, harvesting of fuel wood such as mangrove trees and hunting of significant species are of utmost concern for biological resources. For instance, people use mangroves almost everyday for cooking, uhm,

traditional occasions as in funeral, and other commercial purposes. This creates a large demand on the cutting and using of mangrove wood. Other problems include the pollution of rivers and habitats from littering, chemical and oil spills, pigpens, pesticides and fertilizers, and scattered dumpsites. A significant number of households in the State of Kosrae have their own pigpen, but often do not have pits to catch the waste, and so contribute to runoff pollution in habitats and rivers. Infrastructure development and general construction has caused much modification of the terrestrial environment mainly from landfills, land clearing, burning, and diversion of rivers and streams. The circumferential road and farm roads accessing the inner part of the island are seen as causing major modification of the island; this modification of land through landfill and road construction damages plant and animal species habitats. The constraints faced on addressing these problems are similar to those of other States, such as funding, lack of awareness, coordination, and overall capacity.

5. Vision: “ The State of Kosrae will have a more extensive, diverse, and higher quality of marine, freshwater, and terrestrial ecosystems, which meet human needs and aspirations fairly, preserve and utilize traditional knowledge and practices, and fulfill the ecosystem functions necessary for all life on Earth”. (same as the NBSAP)

5.1 Goal:

“Kosrae State BSAP Goal is striving for successful action to conserve Kosrae State Biodiversity and must address the full range of causes of its current loss through conservation programs, protection of biodiversity, sustainable use of natural resources, restoration of endangered species, and buildup of individual human capacity for conserving biodiversity through awareness programs.”

This goal will be achieved through the objectives and prioritized actions specified in the Kosrae State BSAP plan:

OBJECTIVE ONE:

To develop, review, and enforce policies and regulations for sustainable harvesting of natural resources.

Actions:

- ❶ Form committee to initiate and implement educational and awareness programs on cutting of trees.**

Lead Agency: KIRMA

Partner Agencies and NGOs: Division of Fisheries, KCSO, and RMCs

- ❷ Ban use of poisonous chemicals such as bleach, cyanide, local plant roots (*derris trifolia*), leafs (*canti candis*), and other destructive fishing methods as in the use of dynamite and electrocution devices.**

Lead Agency: Division of Fisheries

Partner Agencies and NGOs: KIRMA, KSL, AG's Office, KCSO

- ❸ Enforce seasonal harvesting of threatened species protected by Kosrae State laws and regulations.**

Lead Agency: AG's Office

Partner Agencies: DALF, and KIRMA.

- ❹ Ban the use of modern fishing equipment and devices such as scuba gear and FADS.**

Lead Agency: Division of Fisheries

Partner Agencies: Law governing Body, NGOs, KSL, DCI, DALF, FSM Customs, and KIRMA.

- ❺ Regulate exportation of significant species such as mud crabs, lobster, and other species considered threatened.**

Lead Agency: DALF

Partner Agencies: Law governing Body, NGOs, FSM Quarantine, KSL, AG's Office Municipal Governments, and KIRMA.

- ❻ Ban use of gillnets with a mesh size approximately less than one inch.**

Lead Agency: Division of Fisheries

Partner Agencies: AG's Office and KIRMA.

OBJECTIVE TWO :

To create and implement educational and awareness programs in the community that address biodiversity conservation.

Actions:

- ❶ Integrate local biodiversity conservation and management into elementary school curriculum.**

Lead Agency: DOE

Partner Agencies and NGOs: KIRMA, DALF, and KCSO.

- ❷ Create committee to implement educational and awareness programs on local biodiversity conservation with the utilization of available media services and technology.**

Lead Agency: KIRMA

Partner Agencies: DOE, Media Services, DOA.

- ❸ Initiate and conduct school visits to address biodiversity lessons.**

Lead Agency: KIRMA

Partner Agencies and NGOs: DOE, KCSO, and DALF.

OBJECTIVE THREE :

To improve, manage and preserve vital ecosystems.

Actions:

- ❶ Prevent destructive development of terrestrial, freshwater, and marine/aquatic areas.**
 - a. Enforce sustainable development of vital areas.**
 - b. Enforce development of regulations for vital areas**
 - c. Restrict development of highly erodible areas.**

Lead Agency: KIRMA

Partner Agencies and NGOs: DALF, KSL KCSO, RMC, and OCA.

- ❷ Strengthen and enforce existing permitting laws and regulations.**

Lead Agency: KIRMA

Partner Agencies and NGOs: KSL, AG's Office, DALF, KCSO, and OCA.

- ③ Require environmental impact statements for all major development projects.**
 - a. Strengthen capacity of personnel to review project EIS.**

Lead Agency: KIRMA

Partner Agencies and NGOs: RMCs, DOE, and KCSO.

- ④ Designate more conservation areas.**

Lead Agencies: KIRMA and KCSO

Partner Agencies: KSL, DALF, AG's Office, RMC, and Municipal Governments.

OBJECTIVE FOUR :

To minimize waste contributing to the pollution of our environment.

Actions:

- ① Enforce littering law.**

Lead Agency: KIRMA and AG's Office

Partner Agencies and NGOs: DALF, KCSO, and Municipal Governments.

- ① Strengthen and enforce existing pollution regulations.**
 - a. Prevent development of pigpen and poultry farm on or along coastal areas.**

Lead Agencies: KIRMA

Partner Agencies, Law governing Body and NGOs: KSL, DALF, RMC, Municipal Governments, and DCI.

- ③ Upgrade and comply with sewage discharge systems to meet United States EPA standards.**

Lead Agency: Sanitation Office

Partner Agencies: KIRMA, C&E, DPW, and Municipal Governments.

④ Prevent unsafe discharge of hazardous chemicals on land and in aquatic areas.

Lead Agency: DPW and KIRMA.

Partner Agencies and NGOs: DALF, AG's Office, Municipal Governments, and KUA.

**⑤ Prevent dumpsites in mangrove and swampy areas.
a. Implement Kosrae State Solid Waste Management Plan**

Lead Agency: KIRMA

Partner Agencies and NGOs: DPW, DALF, C&E, and Municipal Governments.

⑥ Implement educational and awareness programs to increase awareness of littering law and pollution regulations.

Lead Agency: KIRMA and Sanitation Office.

Partner Agencies: DALF, and AG's Office.

⑦ Explore alternatives to plastics, styrofoam, and other non-biodegradable materials.

Lead Agency: KIRMA

Partner Agencies and NGOs: KCSO, OCA, and KVB.

OBJECTIVE FIVE:

To implement programs and practices for the security of our genetic resources and local knowledge.

Actions:

① Develop regulations for the research and use of genetic resources.

Lead Agencies: KIRMA and DALF

Partner Agencies and NGOs: OCA, KSL, AG's Office, Division of Fisheries, Quarantine Office, and KCSO.

1. Develop mechanisms and access and benefit sharing regimes to manage and protect traditional knowledge.

Lead Agency: KIRMA and OCA

Partner Agencies and NGOs: DALF, AG's Office, Division of Fisheries, KCSO, and Municipal Governments.

OBJECTIVE SIX :

To Develop programs for restoring biodiversity and species habitat.

Actions:

❶ Establish mangrove tree planting programs in each municipality.

Lead Agency: KIRMA

Partner Agencies and NGOs: DALF, RMC, and KCSO.

❷ Rehabilitate and enhance stewardship for species habitat.

Lead Agency: KIRMA

Partner Agencies and NGOs: DALF, Women Groups, DOE, RMC, KCSO, and Municipal Governments.

❸ Initiate quarterly underwater and on-land community cleanups.

Lead NGO: KCSO

Partner Agencies and NGOs: DALF, KIRMA, Women Groups, RMCs, Girl Scouts, and Boy Scouts.

❹ Establish terrestrial and marine reserves.

Lead NGO: KCSO

Partner Agencies and NGOs: KIRMA, DALF, and RMCs.

❺ Promote establishment of on-island research facilities.

Lead Agency: KIRMA

Partner Agencies and NGOs: DALF, OCA, DCI, DOA, DOE, DHS, COM-FSM, and KCSO.

6. Strategy

The State of Kosrae has undergone several processes to devise mechanisms and plans to explore more effective ways to manage the fragile and vulnerable biodiversity resources of the island. Results of the processes will need to be fully integrated into current and future processes for prioritizing actions. For example, the development of the land use plan involved a comprehensive and extensive process incorporating much of the population, and resulted in the land use plan including other strategies such as the Shoreline and Reef Management Strategy. This Action Plan will avoid duplication of processes by focusing on capacity building, addressing the gaps in information, and incorporating emerging issues to make existing documents more up-to-date and relevant.

Relatively ineffective mechanisms and protocols exist to address biodiversity issues, hence the need to build local capacity to improve on these mechanisms and to be able to carry out priority activities effectively and efficiently for the benefit of all now and in the future. In doing so, the building of capacity at all levels is needed, including the individual, institution, and systemic levels. The individual level will focus on building each person's capacity to take action or participate effectively in carrying out actions toward sustaining Kosrae State biodiversity. The institutional level will incorporate mechanisms to attract and retain experts and promote ongoing skills development through training. It will also provide scholarships for students majoring in fields relating to biodiversity conservation. Building at the systemic level requires individuals and institutions to work together to implement actions provided in the State BSAP for improving and conserving the State ecosystem. This level includes agencies, organizations, and established groups e.g. RMCs.

7. TIME TABLE FOR KOSRAE STATE BSAP

January – November 2005

- Objective One: *To develop, review, and enforce policies and regulations for sustainable harvesting of natural resources.*

Actions: 2 - 6

December 2005 - January 2006

- Objective One, Action One: *Create committee to implement educational and awareness programs on local biodiversity conservation with the utilization of available media services and technology.*

February - October 2006

- Objective Three: *To improve, manage and preserve vital ecosystems.*

November 2006 - July 2007

- Objective Four: *To minimize waste contributing to the pollution of our environment.*

August - October 2007

- Objective Five, Action One: *Form committee to develop programs and mechanisms to manage and protect local knowledge.*

November 2007 - January 2008

- >Objective Six: *To develop programs for restoring biodiversity and species habitat.*

February - July 2008

- Objective Two, Action Three: *Initiate and conduct school visits to address biodiversity lessons.*

August - December 2008

- Reviewing, reporting, of progress.
- Review, revise, and update BSAP as may needed.

8. Financing

The Government shall initiate implementation of the actions specified in the Kosrae State BSAP plan with funding from within the State budget. Major financing of programs, however, is expected to be from external sources matched or supported by contributions from the government and other sources in the State. Priority actions will be reviewed for possible integration into a medium sized project for the development of a single integrated project proposal. This proposal will be submitted to the Global Environment Facility for initial funding and implementation. Other project proposals will be developed by each agency for respective priority areas for submission to other sources of funding either multilateral, bilateral, or from private donors or GEF when appropriate. Furthermore, every year, an assessment will be made to explore areas where national funds can be utilized to implement elements of this Action Plan.

9. Monitoring and Evaluation

In order to evaluate the success of the objectives outlined in this implementation plan and ensure continued commitment to them, a review and reporting process will be conducted every 4 years to coincide with a national or international review of implementation of the Convention on Biological Diversity. This review process will be conducted by the Kosrae Island Resource Management Authority in cooperation with the relevant agencies and non-government organizations and will identify continued threats to biodiversity as well as highlight areas of improvement. The prioritized actions would also be reviewed and updated to ensure this plan addresses contemporary issues.

