Implementing CITES in the Gulf Cooperation Council Countries: Challenges and Opportunities

Aisha Al Hamdan, Mohammad S. Abido, Ahmed O. El-Kholei* and Asma Abahussain

Department of Natural Resources and Environment, Arabian Gulf University, Manama, Kingdom of Bahrain

*Email: aelkholei@agu.edu.bh

Abstract

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) controls the wildlife trade. All the Gulf Cooperation Council (GCC) countries are parties to CITES. GCC countries are the prime destination of exported falcons and Oud. In 2016, Saudi Arabia and the UAE were the destinations of approximately 26.8% of the world's seized specimens of agarwood. These facts justify examining countries' arrangements for implementing and enforcing the convention. Researchers used the Institutional Analysis and Development (IAD) framework for inquiry. Sources of information included site visits, surveys, interviews, and documents. The researchers interviewed 742 interviewees representing different stakeholder groups. Results show that the present legal framework is not wholly conducive to an integrated and holistic measure for complying with the convention. Traditions and culture, lack of trained cadres, complicated procedures, inadequate coordination, lack of economic incentives, and imperfect information are challenges for effective implementations of the convention. The research confirms the importance of institutional setup, legal systems, and socioeconomic context in successfully complying with and enforcing CITES. Coordination between executing agencies, strict law enforcement, and capacity building contribute to the effective implementation of the convention.

Keywords: Action; agarwood; falcons; model law; trade; wildlife.

Introduction

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is one of the oldest Multilateral Environmental Agreements (MEAs). The convention entered into force in mid-1975 and currently has more than 180 parties. The convention's main objective is to protect wild fauna and flora species from being over-exploited through international trade (CITES, 2021).

Over the past five decades, CITES succeeded, to a large extent, in controlling the international wildlife trade (Abensperg-Traun, 2009; Challender et al., 2015). However, some obstacles remain and hamper the effective implementation and enforcement of the convention at the national level, including the institutional setup, legislation, and cultural contexts. Without proper institutional setup, adequate legislation, and positive attitudes of the cultural context, it would be

challenging to regulate wildlife trades and curb illicit trading and trafficking of wildlife products.

The Gulf Cooperation Council (GCC) includes Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). Mostly these countries have similarities in the level of development and tradition. With 1095.8 billion dollars in 2018, these countries are considered a hub for international trade (GCC-STAT, 2021). Trading in wildlife and wildlife products forms a substantial part of international trade with billions of dollars, and a substantial quantity of this trade is transient through some GCC countries. In this respect, CITES provides a comprehensive framework to ensure that trade will not jeopardize the survival of its listed species. The system rests on license authorization for trading in certain species and their product. However, effective implementation of the system requires national control of legal international trade in CITES-listed species; and national measures to stop the illegal trade in these species (CITES, 2021). These two conditions require an adequate legal system, effective institutional setup, and proactive attitude in all aspects of cultural contexts.

GCC countries are parties to CITES. Four out of the six countries issued national legislation to regulate wildlife trade and designated specific entities responsible for implementation.[1] Nevertheless, these countries are the prime destination of exported falcons and other CITES-listed species. According to the convention database, between 2017 and 2018, the GCC countries traded 449 falcons. The turnover of trading falcons was about $133 million in the GCC region.[2]

Wildlife trafficking exists in GCC countries; nevertheless, it is considered a crime and is being fought relentlessly by executing agencies. For instance, Saudi customs inspectors foiled an attempt to smuggle three drugged falcons from the UAE (al Barqawi, 2016). In 2017, Kuwaiti authorities confiscated 14 Shaheen falcons (*Falco peregrinus*), 470 Houbara bustards (*Chlamydotis undulata*), and another 60 birds, including Lesser Kestrel (*Falco naumanni*), Arabian scops owl (*Otus pamelae*), and Eurasian hoopoe (*Upupa epops*).[3] The UAE is a regional trade in shark and emperor fish (*Lethrinus nebulosus*) products. Oman, and the UAE, together with Pakistan and Yemen, account for 11 percent of dried fin exports to Hong Kong (Jabado & Spaet, 2017).

The GCC countries have a long tradition of using and trading Oud, and Oud oil extracts, mainly from agarwood trees (López-Sampson & Page, 2018). In this context, the UAE and Saudi Arabi are two major direct importers and exporters of these products in the GCC region. Meanwhile, illegal trade in these products in the GCC region also exists, and its magnitude is unknown due to a lack of reliable data. Nevertheless, United Nations Office on Drugs and Crime (2016) stated that Saudi Arabia and the UAE were the destinations of approximately 26.8% of the world's seized specimens of agarwood.

Several scholars investigated the implementation of CITES. For instance, Dongol and Heinen (2012) assessed Nepal's CITES policy gaps using parameters relevant to policy

---

[1] The UAE joined CITES in 1990, and issued the Federal Law No. 11/2002, then withdrew from CITES and rejoined later (Bruch & Mrema, 2006, p. 56). Saudi Arabia joined CITES in 1996. The Royal Decree No. (M/9) issued on 6 August 2000 regulate trade of endangered species and their products. In 2001, Qatar joined CITES and issued Law No. 5/2006 regulating the trade in endangered species. In accordance with Law 17/ 2002, Kuwait ratified CITES on 12 August 2002, and issued Resolution 93/2003 regulating trade in endangered species. Oman ratified the agreement in 2008. Based on Law 27/2012, Bahrain joined CITES.

[2] An interview with the founder and manager of al-Saliali Falcon Research Center, Kuwait, in 2017.

[3] An interview with the Head of Wildlife monitoring section. Environment Public Authority, in 2018.

content, executing agencies' performance, and clients' roles. They found that gaps in policy design, the weaknesses of executing agencies, and contextual implementation issues, including poor enforcement, affected the Convention implementation. The authors emphasized the role of enforcement agencies, setting targets with their performance indices and enhancing media functions. Arroyo-Quiroz et al. (2005) reviewed Mexico's efforts in implementing CITES. They concluded that coherent laws, good institutional structure, and internal collaboration and coordination between national institutions contributed to enhancing 'Mexico's policy and implementation performance of the convention.

Regional economic integration is crucial for successful compliance and implementation of CITES (Kecse-Nagy et al., 2014). Regional integration harmonizes legislation and enables exchanging information and learning from each other's experiences. Kecse-Nagy et al. (2014) highlighted the vitality of integrating wildlife management and trade regulations relevant to CITES in the setup of both institutional and legal frameworks at the regional level.

Information, data, and reporting are among the data sources to evaluate a country's compliance and enforcement of an MEA (Fitzmaurice, 2019). Lack of data, especially information regarding the fate of confiscated wildlife products, is atop the list of hurdles for the proper implementation of CITES (D'Cruze & Macdonald, 2016).

Several authors such as Reeve (2004, 2006, 2014), Walsh (2005), Young (2011), Challender et al. (2015), and 't Sas-Rolfes et al. (2019) have used qualitative analysis. The Institutional Analysis and Development (IAD) framework is a diagnostic tool that enables researchers to understand complicated problems associated with collective action by segregating them into action arenas. This paper investigates the national arrangements for implementing CITES in the GCC countries. It attempts to assess countries' compliance and enforcement of CITES by interrogating their institutional and legal frameworks and the executing agencies' action arena.

Material and Methods

The researchers used the IAD framework to examine the efficacy of implementing CITES in the GCC countries by describing institutions involved in implementing CITES. The analysis went through the seven following steps that Polsky and Ostrom (1999) and Ostrom (2009) devised:

1. Identify variables associated with CITES implementation in GCC countries.
2. Examine the responsible authorities implementing CITES.
3. Study the specificities of GCC countries.
4. Investigate rules-in-use by interrogating: Position; Boundary; Choice; Aggregation; Information; Pay-off; and Scope.
5. Examine actors and action situations.
6. Explore forms of interaction.
7. Explore outcomes in terms of conformance to the convention.

Sources of information examined in the paper include site visits, surveys, interviews, official documents, published work, and websites. Besides interviewing key personnel responsible for CITES compliance and implementation, the researchers designed seven

questionnaires to gather primary data and then sent them to 742 participants stratified according to their institutional affiliation, Fig. 1.
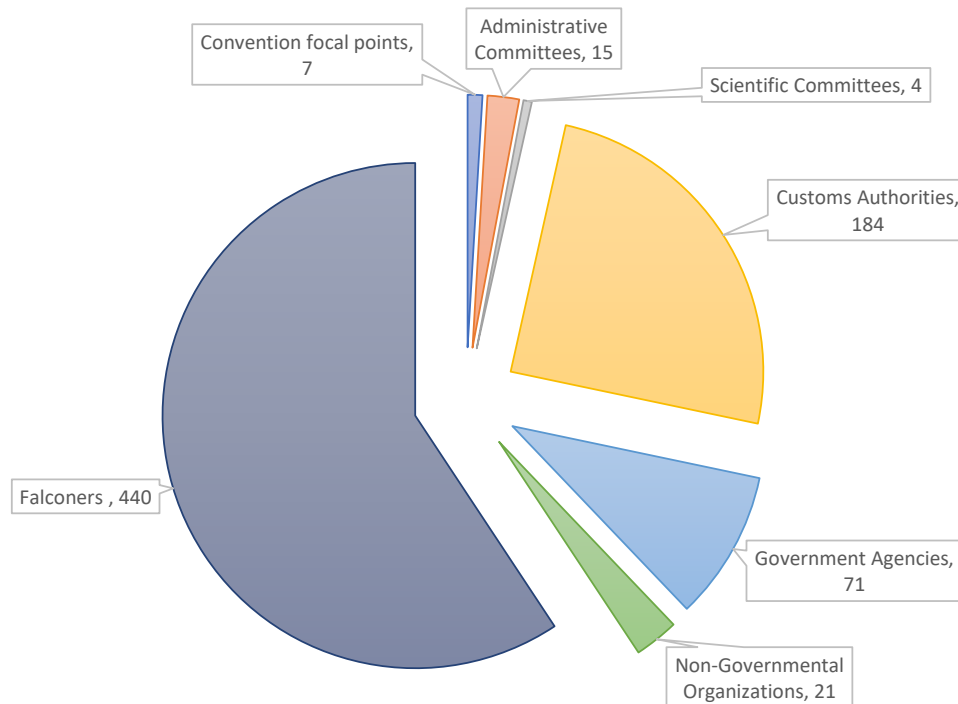
Figure 1. Interviewees stratified by affiliation

Before distributing the questionnaire and conducting surveys and interviews, the researchers calculated the Cronbach alpha for the seven questionnaires addressing the various stakeholder groups to ensure data validity and reliability. The results ranged from 0.607 to 0.89, which is acceptable (Tavakol & Dennick, 2011).

The researchers conducted a comparative content analysis of existing legislation regulating the trade in endangered wild fauna and flora species in the GCC countries to that model law suggested by the convention. They used the following parameters (concepts) to conduct the content analysis:

1. Strength, inclusiveness, and adequacy of the legal framework
2. Compliance and implementation measures (administrative, scientific, and national enforcement bodies)
3. Registration and authorization procedures
4. The agencies' qualifications and authorities
5. The involvement of stakeholders
6. Transboundary and regional cooperation
7. Capacity building plan and setting strategies
8. Specification of violations and penalties

The researchers calculated the conformity after developing a checklist regarding activities, such as regulating and monitoring wildlife trade, using the Sorensen (1948) Similarity Index (Equation 1) to estimate the similarity index and conformity of national laws to the recommended law.

Equation 1

$$SI = \left[\frac{2C}{(A+B)}\right] * 100$$

where:

      SI is the similarity index.

      C is the number of phrases shared between the model and national laws.

      A is the number of phrases included in the model law.

      B is the number of phrases included in the national law.

The researchers used the qualitative data methodology employing the Noticing, Collecting, and Thinking (NCT) analytical framework model developed by Seidel (1998) using ATLAS.ti software (Friese, 2019). The researchers examined the collected data by noticing a pattern in the documents and responses to the open-ended questions, then collecting similar information into codes and thinking about relationships. The researchers then calculated the co-occurrence coefficient, which shows the strength of association between the codes, using Equation 2.

Equation 2

$$c = \frac{n_{1-2}}{(n_1 + n_2) - n_{1-2}}$$

where:

      c is a coefficient for each shared presence between two symbols.

      n_{1-2} is the joint quotations that two codes share.

      n_1 is the number of quotations in Code 1.

      n_2 is the number of quotations in Code 2.

Results

The section consists of two significant subsections: (1) results from the IAD inquiry; and (2) results from the qualitative analysis. The first subsection answers the seven questions that Section Material and Methods outlined earlier. The second subsection exhibits the collected data results to augment the IAD inquiry aiming to portray a comprehensive outlook of implementing the convention.

I. Institutional Analysis and Development

The context of implementation

Biophysical environment

The GCC countries are part of the Arabian Peninsula, which is desert and arid. Most human settlements of GCC countries are on the Arabian Gulf coasts and the Red Sea. Before oil discovery, trading, fishing, and herding sheep and camels were the principal activities (Rentz et al., 2019). The Arabian Peninsula comprises several ecosystems, including deserts, coastal zones, mountains, valleys, and marine environments, thus possessing relatively diverse biodiversity. It is at the crux of significant migration routes, where several migratory birds and aquatic species pass by the Arabian Peninsula (IUCN, 2019).

Socioeconomic conditions

The population of the GCC countries is homogeneous in language, religion, and culture. The social structure is tribal (Rentz et al., 2019). Islam is the prevailing religion. Islamic law (āl Šhari'ah), besides social norms and values, is the source of any legislation.

The economies of the GCC countries transformed because of the boom in oil prices. Dividends of oil sales financed societal transformations and increased per capita share of Gross Domestic Products. National budgets witnessed surpluses that enabled Governments of GCC countries to expand their infrastructures and social services. GCC countries embarked on diversifying their economic base and reforming labor markets to prepare for an era where renewable energy sources are available (Sturm et al., 2008).

Falconry and burning incense and Oud are traditions and cultures in GCC countries. Our results show that most falconers, about 54.4%, own 1-2 falcons. As a customary practice, they possess a falcon representing 45.3% of the interviewees, another 31.3% of the sample own a falcon for hunting. Others, who possess two falcons and over, have other purposes, including trading (4.5%), breeding (3.0%), and taking part in festivals and falconry competitions (15.9%). As the CITES database shows, growth in per capita income boosted the demand for wildlife products.

Institutional arrangements

Content analysis reveals that GCC countries' constitutions and statutes emphasize their culture and identity, constituting a framework for preserving and regenerating natural resources by protecting ecosystems from irrational use and pollution. They are the basis for environmental legislation and define institutions' roles, such as authorities for the environment, agriculture, water, energy, and fisheries, responsible for implementing CITES. These agencies collaborate with other central agencies, such as port authorities, customs, and veterinary quarantines, to enforce national laws regulating wildlife products trading. They are the depository of information on imports and exports,[4] which they share with their national peers and other GCC countries.

Each port and airport include an equipped and air-conditioned building with cages of different sizes dedicated to quarantining animals. Veterinarians inspect the samples, and another building is for inspecting plants, shoots, and seeds. The unified GCC legislation issued in 2003 defines the inspectors' responsibilities. Whether the imported or exported sample is a plant or an animal, the inspectors examine shipments of living or dead specimens, then report the presence, outbreak, or spread of pests. Their responsibilities extend to ensuring the safe disposal of confiscated specimens. Customs check the permissions for importing or exporting animals and plants.

The national documents did not include a compliance assessment conducted to evaluate the countries' preparedness to comply with the convention. The interviewees showed areas of non-compliance and the actions executed to address these weaknesses before joining CITES. The reviewed documents did not include compliance action plans. Once a country join CITES, it is imperative to identify compliance problems and overcome them.

CITES proposed a model for a national law regulating the international trading of endangered wild fauna and flora. Only four out of the six GCC countries issued a national law to control wildlife trade. Results from Equation 1 show that national laws

---

[4] The basis for preparing the national reports.

that the four GCC countries are not 100% consistent with the proposed model law. The reviewed laws contain the proposed model law's key elements, such as identifying the administrative and scientific bodies and describing their functions, power, and limits. National laws emulate the proposed model law prohibiting trafficking in samples violating CITES, confiscating illegally traded samples, and procedures and rules for issuing CITES permits, penalties, and fees. The similarity index for Kuwait, Qatar, Saudi Arabia, and the UAE reached 70%, 74%, 61%, and 85%, respectively, showing gaps in implementation and weak compliance measures. Nevertheless, enacted laws in Saudi Arabia, Qatar, and UAE were considered adequate by CITES criteria for implementing the convention (CITES, 2016).

Lack of coordination between the relevant authorities is among the GCC countries' administrative constraints in implementing MEAs (al Awadhi, 2000). Our results affirm this conclusion. The reviewed laws do not specify a mechanism to coordinate the various institutions responsible for implementing CITES. None of the reviewed laws includes provisions to coordinate with other national laws about environmental management. The reviewed laws did not include a reference to CITES lists and amendments. For that reason, al Awadhi (2000) argued that environmental laws of GCC countries are not conducive to the full implementation of MEAs. Al Mayouf (2005) concluded that procedural and regulatory constraints that accompany environmental laws in GCC countries are obstacles that would fully comply with MEAs. GCC countries must incorporate the CITES provisions into national laws and employ legal strategies to implement the convention effectively.

Action Arena

Key public authorities

National authorities are responsible for managing the environment in GCC countries and cooperating with other public authorities on implementing CITES. They are the seat of the national focal point and the national administrative body. Other organizations issue trade permits under CITES requirements. Their cadres stationed in each port inspect the samples under the GCC unified law mentioned previously. They represent the CITES management authority in each country and communicate with the secretariat and other parties.[5]

After surveying 51 persons out of the 742 interviewees in Bahrain, Kuwait, Oman, Saudi Arabia, and the UAE, who belong to these agencies, they know CITES and the national laws regulating wildlife trade. Only six out of the 51 interviewed persons were unaware, showing a need for capacity building and training.

Other public authorities

Other public authorities include the Ministries of Trade and Industry, the General Administrations of Customs, Ports Authorities, the General Directorates for Civil Aviation, and airways corporations. They share the responsibility of executing CITES within their mandate.

Surveying customs personnel in the GCC countries suggests that smuggling wildlife products are not atop their list of priorities, where 64% do not comprehend the risks of

---

[5] "Article 8 of the CITES Model Law on International Trade in Wild Fauna and Flora (spelling out the responsibilities of the CITES Management Authority)" (Bruch & Mrema, 2006, p. 200).

illegal hunting, and 76.9% do not think that exporting wildlife products affects biodiversity. Results suggest a discrepancy in the interviewees' level of knowledge, where those who are familiar with the convention represented 36.7%, 66%, 53.3%, and 45.1% in Bahrain, Kuwait, Oman, and Saudi Arabia, respectively. One reason for this variation, as they responded, is their need for training.

About 88.2% of the sample reported cooperation between the GCC countries in implementing CITES, particularly veterinary and agricultural quarantine services. They, however, mentioned limited detailed coordinated joint investigations into smuggling operations. Often their annual plans do not include combating wildlife products illegal trade, as around 70% of the interviewees responded.

There is a need for training and building capacities of those responsible for ports and customs; only 88.2%, 6.7%, 11.3% of them from Kuwait, Oman, and Saudi Arabia received training on wildlife smuggling. Elaborating and delivering training is required to fulfill national obligations as stated in the convention. The result is in accord with al Awadhi (2000), who argued that GCC countries lack of trained cadres in environmental protection impedes compliance with MEAs in general.

Scientific committees

There are scientific committees officially planned within the mandate of CITES in all the GCC countries, including national universities and research institutes. They carry out scientific aspects of implementing CITES. The scientific committee in each country is the authority responsible for guiding the management authority mentioned earlier. However, most of these committees lack resources and adequate skills and expertise.

Private sector companies and their clients

Private sector companies are actively trading wildlife products and their clients who demand these products are non-government actors. Private sector companies apply for permits to import or export wildlife products, and they interact with authorities for permits. Falconers also interact with public authorities to issue passports for their falcons.

NGOs

NGOs are another group of actors. They organize workshops to raise the public's awareness and launch campaigns to cleanse the environment. An Omani NGO took part in a research project to protect turtles on the island of Fatela, while a Bahraini NGO took part in a study of bird species. The survey shows that 81% of those representing NGOs are familiar with CITES, showing civil society organizations' capacity to raise awareness regarding wildlife trafficking. Almost 80% of them recognized the existence of a national law for regulating trade in wildlife products. Approximately 95.2% of the surveyed individuals confirmed they do not possess wild species.

Patterns of Interaction

According to the interviewees and examined national documents, acquiring a permit is a complicated and tiresome procedure, which interviewees from the private sector companies repeatedly raised. Requesting a permit to import or export CITES-listed species goes through several stages. It starts with filling a form and submitting it to the authority granting permission, which might approve or reject the request. The applicant must re-apply once more; then, the application goes through the process starting from

square one.

The results indicated that since the procedure is complicated and associated with transaction costs, many opt to violate the legislation. About 47.5% of the interviewees purchased their falcons, and 12.3% received them as gifts. The remaining 5.4% hunted their falcons outside the GCC region. Because the falcons were officially captured or purchased within their country, about 60% of individuals, who belong to the first two groups, do not have CITES license for their falcons.

When asked if they were having problems with import procedures, 72.2% of the falconers complained that getting a permit and entering or exiting a bird is lengthy and complicated. They added that lacking experienced specialists at the ports is another issue that often damages the bird. They called for an integrated quarantine system. Another issue that falconers face is availing health care to their falcons. They complained about the lack of an insufficient number of falcon hospitals or clinics to provide health care besides the difficulty of obtaining permits.

Evaluation Criteria

CITES aims to guarantee the survival of wildlife species by regulating international trade. The convention permits legitimate trade and scientific inquiry[6] and extends to include institutional mechanisms and procedures for cooperation with countries that are not a party.

The evaluation criteria to measure the extent of compliance and enforcement, which Bruch and Mrema (2006) and the WGC (2007) outlined, rests on the following parameters:

1. Setting up an institutional framework for implementation, such as formulating an administrative committee and scientific committee and appointing a focal point, tops the list of elements making up the evaluation criteria.

2. Preparing annual, biennial reports, legislative texts, and other special reports measures the extent to which the country is complying with the convention and enforcing its provisions.

3. Countries prepared compliance assessments and compliance plans. Compliance assessments are essential before ratifying an MEA (Bruch & Mrema, 2006) to identify needed changes to meet the obligations of CITES. A national compliance plan aims to elaborate on legislation, establish enforcement measures to cope with illegal trade and enhance administering Appendix-II species subject to significant legal trade levels (Bruch & Mrema, 2006).

4. Implementing the model law is a sine qua non for perfect compliance and enforcement of CITES. Inadequacies in the law or gaps in the national law hamper the complete compliance and enforcement of the convention.

5. Countries must develop and execute national implementation plans for compliance and enforcement. The aim of these plans is to mainstream CITES requirements into plans for national and local development activities. The planning team identifies

---

[5] Appendix I of CITES includes species threatened with extinction, and international trade in these species is permitted only in exceptional circumstances. Appendix II of CITES includes species not necessarily threatened with extinction but in which trade must be controlled in order to avoid utilisation incompatible with their survival. Appendix III of CITES includes species that are protected in at least one State which has asked other CITES Parties for assistance in controlling the trade" (Bruch & Mrema, 2006, p. 51).

[7] Article XII on International measures.

stakeholders and partners to talk about the needs of CITES and necessary measures for perfect compliance and enforcement, thus examining potential areas for capacity building and linkages to economic and social development. The dialogue enables mobilizing resources needed for implementation and ways to overcome barriers.

6. Using both economic instruments and command-and-control is another element of the evaluation criteria. Economic instruments aim to enable cost-effective implementation of CITES, while enforcement programs aim to prevent, punish, and rectify violations.

7. Supportive measures are another set of evaluation criteria. These measures include education and raising awareness activities, maintaining databases, media campaigns, and involving women and youth stakeholders.

Outcome

By juxtaposing the content analysis results, the survey, and interviewees, the research found that, first, GCC countries set up an institutional framework for implementing the convention without assessing their implementation capabilities or preparing an action plan to address weaknesses. Also, none of the countries prepared a compliance assessment and plan before joining the convention.

Some countries issued legislation regulating wildlife trade, but none of these laws are in total conformity with the model law that the convention recommends. Shortcomings in the legal framework suggest that the country may have difficulties complying with the convention and cannot fully enforce its provisions. Not all GCC countries prepare and submit annual reports.

Besides command-and-control, there is always a role for using economic instruments when addressing an environmental issue. None of the reviewed documents showed the intention to employ economic instruments for a cost-effective convention execution. The reviewed documents and interviews did not mention other supportive measures, such as mainstreaming wildlife trade in school curricula, organizing and executing communication strategies, and keeping a database.

Fig. 2 is a schematic summary of the IAD inquiry modeled according to the guidelines that Ostrom (1990, 2009), Polski and Ostrom (2017), and Ostrom and Basurto (2011) devised in examining the commons and public goods.
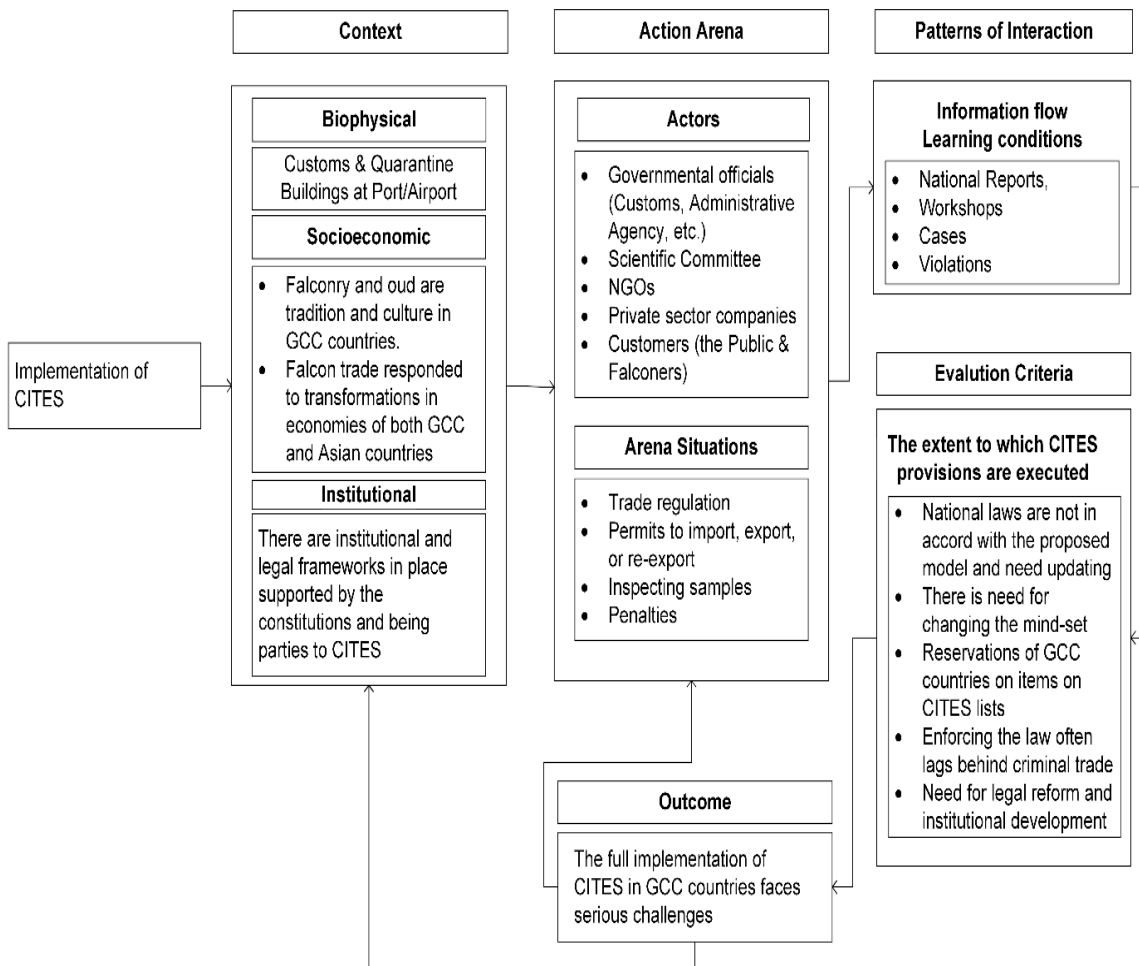
Figure 2. Results of the IAD analysis

II. Results from exploratory inquiry

Documents that the researchers investigated and both surveys and interviews resulted in the 11 codes that Fig. 3 depicts grounded in quotations, such as statements and phrases, that reflect shared meanings. The numbers listed as grounded quotations resemble the frequencies in descriptive statistics, which the researchers used to conduct the co-occurrence analysis. They include statements of actions and meanings.

Figure 3. Network depicting relationships among codes

Fig. 3 suggests that complying with the convention is a direct outcome of the institutional framework as handling samples at customs and quarantine, trade regulations, provisions of offenses, and cases of illicit trafficking show. The legal framework of a country is central to the institutional setup. It affects regulating the trade of wildlife products and procedures to get permits, affecting its ability to comply with and implement the convention. Table 1 exhibits the joint count of grounded quotations and coefficient between each pair of codes. The researchers highlighted cases where the co-occurrence coefficient was 0.5 and over, showing a significant relationship.

Table 1. *Results of Co-Occurrence Analysis*

|		Adequacy of the institutional framework Gr=304	Adequacy of the legal framework Gr=249	Cases of illicit trafficking Gr=154	Compliance measures Gr=56	Handling samples Gr=158	Implementation of the Convention Gr=71	Initiatives, plans, and capacity-building Gr=56	Procedures for obtaining permits and certificates Gr=161	Provisions of offenses and penalties Gr=59	Qualifications and powers of the responsible authorities Gr=52	Trade regulations Gr=181
Adequacy of the institutional framework Gr=304	count	0.00										
	coefficient	0.00										
Adequacy of the legal framework Gr=249	count	227.00	0.00									
	coefficient	0.70	0.00									
Cases of illicit trafficking Gr=154	count	158.00	163.00	0.00								
	coefficient	0.53	0.68	0.00								
Compliance measures Gr=56	count	39.00	31.00	16.00	0.00							
	coefficient	0.12	0.11	0.08	0.00							
Handling samples Gr=158	count	164.00	168.00	155.00	26.00	0.00						
	coefficient	0.55	0.70	0.99	0.14	0.00						
Implementation of the Convention Gr=71	count	43.00	28.00	12.00	20.00	22.00	0.00					
	coefficient	0.13	0.10	0.06	0.19	0.11	0.00					
Initiatives, plans, and capacity-building Gr=56	count	60.00	34.00	16.00	17.00	18.00	24.00	0.00				
	coefficient	0.20	0.13	0.08	0.18	0.09	0.23	0.00				
Procedures for obtaining permits and certificates Gr=161	count	60.00	37.00	19.00	13.00	26.00	30.00	23.00	0.00			
	coefficient	0.15	0.10	0.06	0.06	0.09	0.15	0.12	0.00			
Provisions of offenses and penalties Gr=59	count	22.00	18.00	12.00	23.00	24.00	15.00	7.00	16.00	0.00		
	coefficient	0.06	0.06	0.06	0.25	0.12	0.13	0.06	0.08	0.00		
Qualifications and powers of the responsible authorities Gr=52	count	52.00	29.00	14.00	19.00	17.00	26.00	19.00	18.00	8.00	0.00	
	coefficient	0.17	0.11	0.07	0.21	0.09	0.27	0.21	0.09	0.08	0.00	
Trade regulations Gr=181	count	180.00	182.00	163.00	24.00	163.00	24.00	24.00	34.00	16.00	24.00	0.00
	coefficient	0.59	0.73	0.95	0.11	0.93	0.11	0.11	0.11	0.07	0.11	0.00

Notes: 1) Gr stands for the number of quotations grounded in a code

2) Green-colored cells significant relationship where c-coefficient is 0.5 and over, while red-colored cells are an insignificant association between two codes, where c-coefficient is less than 0.5. The intensity of the color indicates the extent to which the relationship is significant or insignificant.

Results suggest that the adequacy of the institutional framework, the sufficiency of the legal framework, cases of illicit trafficking, and handling samples associate with each other. The institutional framework's adequacy is significantly associated with the

legal framework's adequacy, cases of illicit trafficking, handling samples, and trade regulations. The co-occurrence coefficients are 0.70, 0.53, 0.55, and 0.59, respectively. The adequacy of the legal framework is associated with (a) cases of illicit trafficking, (b) handling samples, and (c) trade regulation. The co-occurrence coefficients are 0.68, 0.70, and 0.73, respectively. Cases of illicit trafficking associated with (a) handling samples and (b) trade regulations with co-occurrence coefficients are 0.99 and 0.95, respectively. The co-occurrence coefficient between handling samples and trade regulation is 0.93.

Fig. 4 suggests that the institutional framework is the prime factor contributing to implementing the convention and enforcing its provisions, where the grounded quotations reached 45 and 41. The legal framework is the second most crucial factor in enforcing and implementing the convention, and trade regulations have an equal association with implementing CITES and complying with its provisions. Procedures for obtaining permits, certificates, qualifications, and the responsible authorities' powers stem from the legal framework, and they seem to affect the convention's implementation. The legal framework is also the basis for offenses and handling samples that show the extent to which GCC countries comply with CITES.
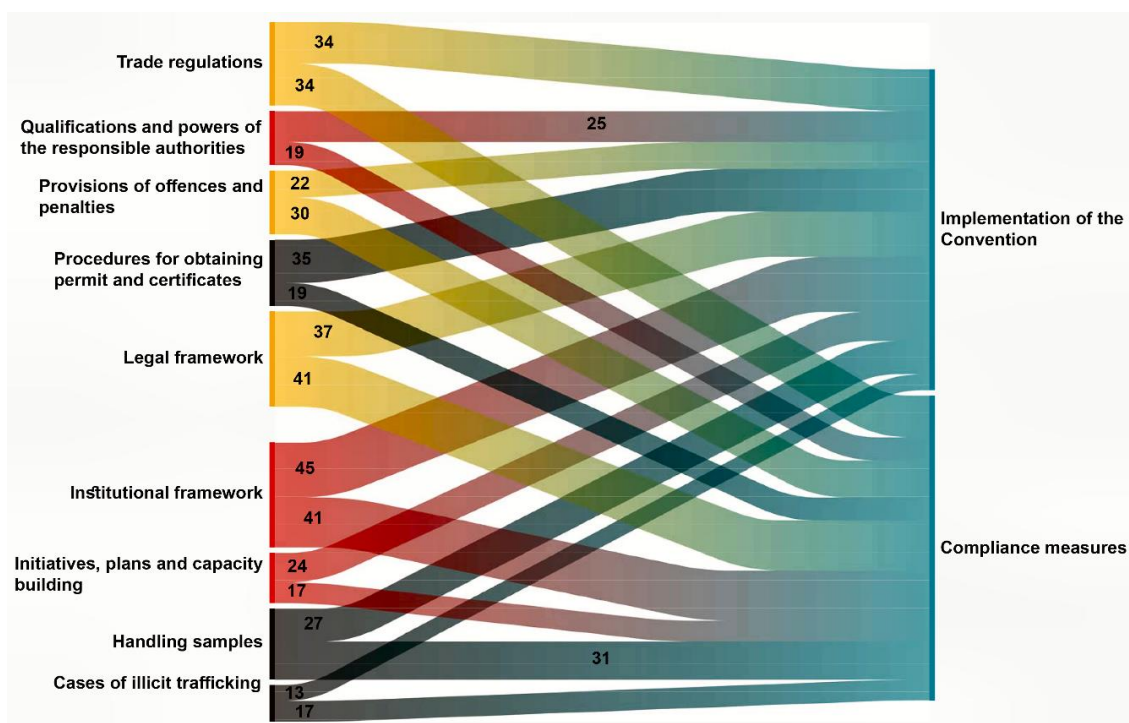
Figure 4. Factors contributing to compliance with CITES and implementing its provisions

Discussion

Complying and enforcing CITES requirements in the GCC countries faces several challenges that require attention. Traditions and culture top the list of challenges, and Falconry and burning incense are customary practices. The rise in per capita income encourages the increase of demand for wildlife products, explaining the GCC countries' reservations on some items on the CITES lists. Trading wildlife products seems to be a vital component of the non-oil sectors in GCC countries' economies.

National laws are at the heart of the institutional setup. Gaps in these national laws mean that the legal framework is not wholly conducive to integrated and holistic measures for

complying with CITES and fighting crimes in wildlife trading.

Lack of trained cadres, complicated procedures, improper coordination, and imperfect information is another set of institutional issues that challenge the perfect compliance with CITES and enforcing and implementing its provisions. As interviewees showed, the dividends that trading wildlife and their products generate are lucrative. As the excerpts from newspapers and social media show, the wildlife trade is out of control once coupled with growing demand and weak institutional and legal frameworks.

Complying with CITES and enforcing its provisions means imposing pressures on governmental authorities that operate within an institutional framework, which traditions and culture shape. These governmental authorities find themselves between a rock and a hard place. Their responses vary from acquiescing by imitating institutional models or compromising by balancing to manipulation via influence and control according to their position and powers. National laws in the GCC countries are not in total conformity with the model law. This may suggest these institutions adopted a position of acquiescence by issuing a law that does not conform with the model law – a finding in line with Oliver's (1991). These positions are the outcome of pressures resulting from traditions and cultural practices.

Conclusion

Investigating the GCC countries' compliance and implementation of the convention requires examining the institutional framework, including the legal system. GCC countries' traditions and culture could be the hurdles that hamper effective compliance with the convention and enforcing it. The inadequate legal system in some countries is another obstacle. Only four out of the six countries issued a law to regulate wildlife trade. None of the four laws agrees with the model law. However, some are adequate, suggesting the need for legislation updates to comply with the convention effectively. Lack of trained cadres and awareness of the importance of protecting wildlife are among the reasons for the limited execution of the convention.

The research reaffirms the importance of the appropriate institutional setting, capable legal systems, law enforcement, and favorable socioeconomic climate in successfully complying with and enforcing MEAs. Coordination between executing agencies, strict law enforcement, economic instruments, and capacity building contribute to the effective implementation of CITES.

The above findings cannot be generalized and need corroboration to help researchers better grasp the likelihood that our findings would be seen as credible or worthy of consideration to formulate policies to abide by CITES. The limitations of the research emerge from those of any qualitative research, including, but not limited to, potential answer bias and self-selection bias. The other limitation is the data's availability, validity, and reliability. Among the main challenges is to elicit information from the secondary data that the countries provide in their related reports and documents.

References

't Sas-Rolfes, M., Challender, D. W., Hinsley, A., Veríssimo, D., & Milner-Gulland, E. J. (2019). Illegal Wildlife Trade: Scale, Processes, and Governance. *Annual Review of Environment and Resources*, 44, 201–228. https://doi.org/10.1146/annurev-environ-101718

Abensperg-Traun, M. (2009). CITES, sustainable use of wild species and incentive-driven conservation in developing countries, with an emphasis on southern Africa. *Biological Conservation*, 142, 948–963. https://doi.org/10.1016/j.biocon.2008.12.034

al Awadhi, B. (2000). Obstacles to the implementation of international environmental agreements in the GCC. *Conference on Environmental Legislation in the Arab Region*.

al Barqawi, A. (2016, February 25). Watch ... thwarting the smuggling of 3 narcotic falcons into the kingdom and delivering them to the National Wildlife Authority. *Sabaq*. https://sabq.org/الفطرية-ـلـ-وتسليمها-المملكة-لـداخل-مخدرة-صقور-تهريب-إحباط-شاهد

al Mayouf, H. (2005). *Criminal protection of the environment in the legislation of the Gulf Cooperation Council countries*. Nabif Arab University for Security Sciences.

Arroyo-Quiroz, I., Perez-Gil, R., & Leader-Williams, N. (2005). Developing countries and the implementation of CITES: The Mexican experience. In *Journal of International Wildlife Law and Policy* (Vol. 8, Issue 1, pp. 13–49). Taylor & Francis Group . https://doi.org/10.1080/13880290590913714

Bruch, C., & Mrema, E. (2006). *Manual on Compliance with and Enforcement of Multilateral Environmental Agreements*. UNEP.

CITES, 2021. What is CITES? https://cites.org/eng/disc/what.php

CITES. 2016. National Laws for Implementation of the Convention. https ://cites .org/sites / defau lt/files /eng/com/sc/66/Inf/E-SC66-Inf-19.pdf. Accessed October 12, 2021.

Challender, D. W., Harrop, S. R., & MacMillan, D. C. (2015). Understanding markets to conserve trade-threatened species in CITES. *Biological Conservation*, 187, 249-259. https://eprints.kingston.ac.uk/id/eprint/34598/1/Harrop-S-34598-AAM.pdf

D'Cruze, N., & Macdonald, D. W. (2016). A review of global trends in CITES live wildlife confiscations A review of global trends in CITES live wildlife confiscations. *Nature Conservation*, 15, 47–63. https://doi.org/10.3897/natureconservation.15.10005

Dongol, Y., & Heinen, J. T. (2012). Pitfalls of CITES Implementation in Nepal: A Policy Gap Analysis. *Environmental Management*, 50(2), 181–190. https://doi.org/10.1007/s00267-012-9896-4

Fitzmaurice, M. (2019). *Environmental Compliance Control. Wroclaw Review of Law, Administration & Economics*, 8(2), 372–394. https://doi.org/10.1515/wrlae-2018-0054

Friese, S. (2019). *Qualitative data analysis with ATLAS.ti (Third Edit).* SAGE.

GCC-STAT, 2021. Trade Exchange. The Statistical Centre for the Cooperation Council for the Arab Countries of the Gulf ("GCC-Stat"). https://gccstat.org/en/statistic/statistics/tag/internationaltrade. Accessed October 13, 2021.

IUCN. (2019). *Transforming Nature Conservation in Saudi Arabia*. News.

Jabado, R. W., & Spaet, J. L. Y. (2017). Elasmobranch fisheries in the Arabian Seas Region: Characteristics, trade and management. *Fish and Fisheries*, 18(6), 1096–1118. https://doi.org/10.1111/faf.12227

Kecse-Nagy, K., Zain, S., & von Meibom, S. (2014). Regional economic integration

organizations: their role in implementing CITES. *OBER*, 26(2), 59.

López-Sampson, A., & Page, T. (2018). History of Use and Trade of Agarwood. In Economic Botany (Vol. 72, Issue 1, pp. 107–129). Springer New York LLC. https://doi.org/10.1007/s12231-018-9408-4

Oliver, C. (1991). Strategic Response to Institutional Processes. Academy of Management Review, 16(1), 145–179.

Ostrom, E. (1990). Understanding the Diversity of Structured Human Interactions. In E. Ostrom (Ed.), Governing the Commons: The Evolution of Institutions for Collective Action (pp. 3–31). Cambridge University.

Ostrom, E. (2009). Understanding institutional diversity. Princeton University Press.

Ostrom, E., & Basurto, X. (2011). Crafting analytical tools to study institutional change. Journal of Institutional Economics, 7(3), 317–343. https://doi.org/10.1017/S1744137410000305

Polski, M. M., & Ostrom, E. (2017). An Institutional Analysis and Policy Design. In D. H. Cole & M. D. McGinnis (Eds.), A Framework for Policy Analysis (pp. 13–47). Lexington Books. https://ostromworkshop.indiana.edu/pdf/toolkit/iad-for-policy-applications.pdf

Polski, M. M., & Ostrom, E. (1999). An institutional framework for policy analysis and design. Workshop in Political Theory and Policy Analysis, 49. https://pdfs.semanticscholar.org/ec83/18779f3f04c6a88cb59cdb338d4d8cde3b85.pdf

Reeve, R. (2004). The CITES treaty and compliance: progress or jeopardy? Royal Institute of International Affairs. https://www.chathamhouse.org/sites/default/files/public/Research/Energy, Environment and Development/bp0904.pdf

Reeve, R. (2006). Wildlife trade, sanctions and compliance: lessons from the CITES regime. International Affairs, 82(5), 881–897. https://doi.org/10.1111/j.1468-2346.2006.00576.x

Reeve, R. (2014). Policing International Trade in Endangered Species. In Policing International Trade in Endangered Species: The CITES Treaty and Compliance. Routledge. https://doi.org/doi:10.4324/9781315071954

Rentz, G. S., Serjeant, R. B., Nijim, B. K., & Ochsenwald, W. L. (2019). Arabia. In Encyclopædia Britannica. Encyclopædia Britannica. https://www.britannica.com/place/Arabia-peninsula-Asia.

Seidel, J. (1998). Appendix E: Qualitative data analysis. The Ethnograph, 4, 1-15

Sorensen, T. A. (1948). A method of establishing groups of equal amplitude in plant sociology based on similarity of species content and its application to analyses of the vegetation on Danish commons. Biol. Skar., 5, 1–34.

Sturm, M. ;, Strasky, J. ;, Adolf, P. ;, Peschel, & Dominik. (2008). The Gulf Cooperation Council Countries - Economic Structures, Recent Developments, and Role in the Global Economy (No. 92; ECB Occasional Paper). http://hdl.handle.net/10419/154545

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. International Journal of Medical Education, 2, 53. https://doi.org/10.5116/IJME.4DFB.8DFD

UNODC. (2016). World Wildlife Crime Report Trafficking in protected species. https://www.

unodc.org/images/data-and-analysis/Wildlife/World_Wildlife_Crime_Report_2016_final.pdf

Walsh, B. (2005). Convention on International Trade in Endangered Species of Wild Fauna and Flora: A CITES Timeline. *Selbyana*, 26(1/2), 92–102. http://www.jstor.org/stable/41760179

Working Group on Compliance. (2007). Guidelines on Compliance with the Convention. https://cites.org/sites/default/files/eng/cop/14/doc/E14-23.pdf

Young, O. R. (2011). Effectiveness of international environmental regimes: Existing knowledge, cutting-edge themes, and research strategies. *Proceedings of the National Academy of Sciences*, 108(50), 19853–19860. https://doi.org/10.1073/pnas.1111690108

Declarations

Acknowledgments

Data Availabilities

Data used in this study are available upon request from the corresponding author.

Conflict of Interest

The authors declare that there are no conflicts of interest regarding the publication of this work

Ethics approval

The first author prepared her dissertation under the supervision and advising of the other three co-authors. The code of ethics of the Arabian Gulf University governed the research procedures. The Department prepared official letters to the interviewees. The seven questionnaires had clear statements showing that the survey was for scientific purposes and that the researchers handled the data with utmost secrecy.

Consent to participate

The Department prepared official letters to the interviewees. The seven questionnaires had clear statements showing that the survey was for scientific purposes and that the researchers handled the data with secrecy.

Consent to publish

The authors have no objection to publishing the paper.

تنفيذ اتفاقية سايتس في دول مجلس التعاون الخليجي: التحديات والفرص

عائشة الحمدان، محمد سليمان عبيدو، أحمد عثمان الخولي* وأسماء أباحسين

قسم الموارد الطبيعية والبيئة، جامعة الخليج العربي،
المنامة، مملكة البحرين

بريد الكتروني*: aelkholei@agu.edu.bh

المُستَخلَص

تنظم اتفاقية التجارة الدولية في الأنواع المهددة بالانقراض من الحيوانات والنباتات البرية التجارة في الأحياء البرية. وجميع دول مجلس التعاون الخليجي أطراف في هذه الاتفاقية. وتعد دول المجلس الوجهة الرئيسية لتصدير الصقور والعود. كانت المملكة العربية السعودية والإمارات العربية المتحدة في عام 2016 وجهة لما يقرب من 26.8٪ من عينات خشب العود المضبوطة في العالم. تبرر هذه المعطيات النظر في ترتيبات هذه البلدان لتنفيذ الاتفاقية وإنفاذها. تم استخدام إطار التحليل المؤسسي والتطوير (IAD) للتحقيق. تضمنت مصادر المعلومات زيارات ميدانية واستطلاعات، ومقابلات، ومراجعة، الوثائق. أجرى الباحثون مقابلات مع 742 شخصًا يمثلون مجموعات مختلفة من أصحاب المصلحة. أظهرت النتائج أن الإطار القانوني الحالي لا يفضي بمجمله إلى إجراءات متكاملة وشاملة للامتثال للاتفاقية. تشمل تحديات التنفيذ الفعال للاتفاقية التقاليد والثقافة، ونقص الكوادر المدربة، والإجراءات الإدارية المعقدة، والتنسيق غير الكافي، كما الافتقار إلى الحوافز الاقتصادية والنقص في المعلومات. يؤكد البحث على أهمية الإعداد المؤسسي والأنظمة القانونية والسياق الاجتماعي والاقتصادي في الامتثال الناجح لاتفاقية سايتس وإنفاذها. ويساهم التنسيق بين الوكالات المنفذة وتطبيق القانون بشكل صارم وبناء القدرات في التنفيذ الفعال للاتفاقية.

مفاتيح الكلمات: إجراء، خشب العود، الصقور، القانون النموذجي، تجارة، الحيوانات البرية.