

1 INTRODUCTION

1.1 THE AIM OF THE STUDY

For several years – in particular since 2016, when a new government took over power after the election in 2015 – an intensive transformation process has been started in Myanmar. It also has to be pointed out, that in Myanmar many periphery regions do exist, which are lagging behind distinctly. For these regions often only limited information about the structures and development potential are available, but such information is vital to meet the transformation and to have a successful regional development. This also holds true for the Indawgyi Lake Area in the northern part of the country.

The above described situation is the starting point for carrying out the following study on the Indawgyi Lake Area. The aim of the research – finding out the potentials of the area and discussing possible development paths – is divided into three objectives:

1. investigating the current socio-economic situation using demographical, social and economic indicators,
2. investigating how the local people evaluate the current socio-economic situation and future development and
3. identifying and discussing the region's sustainable development potentials.

1.2 MYANMAR UNDER TRANSFORMATION

After the Second World War during the first years of independence between 1950 and early 1958 Myanmar was one of the economically most advanced countries in Southeast Asia. In particular, Myanmar exported agricultural products (e.g. rice) and offered good higher education opportunities to students from other countries in Southeast Asia (e.g. South Korea and Singapore) (Hauff 2009: 1). However, in late 1958 the situation changed because the ruling party of the democratic government split into two factions and various ethnic groups began to demand autonomy¹ (Bünthe 2011). As a result, the military took power in a coup in 1962 and appointed a new government cabinet, which was made up of selected high-ranking generals

1 According to the Panglong agreement they were entitled to do so after 10 years. The Panglong agreement is an agreement, which has been signed in Panglong between the Burmese government under General Aung San and the Shan, Kachin, and Chin in 1947. The agreement accepts “[...] Full autonomy in internal administration for the Frontier Areas” (Tinker 1984: 404–405, Ethnic National Council of Burma 1947).

(Huang 2012, Bünthe 2011, Hauff 2009: 9–10, Nakanishi 2007). In 1974, this military government adopted a new constitution after abolishing the 1947 constitution and dissolving the parliament (Hnin Yi 2014).

Thereafter the ‘Burmese Way to Socialism’ was launched (Huang 2012, Maung Aung Myoe 2009: 60, The Revolutionary Council of the Union of Burma 1962) and Myanmar moved toward self-imposed isolation (Thant Myint-U 2009). As a result the economy deteriorated rapidly despite its richness in natural resources, including oil and gas, gems and teak (Bünthe 2011, Tyn Myint-U 2010: 17). Under the socialist regime all economic sectors (e.g. international trade, banks), all social services (e.g. health, education) and all infrastructure sectors (e.g. transportation, communication) were nationalized (Hnin Yi 2014, Bünthe 2011, Maung Aung Myoe 2009: 61). In particular, farmers suffered from this system because they had to sell their products to the state below market prices. In 1974, the ‘Green Revolution’ was initiated in the agricultural sector using high-yield varieties and applying of agrochemicals in order to improve efficiency and productivity (Thein 2004: 5). However, this was not a sustainable solution to overcome the economic problems and to widely increase productivity. The decline in exports led to significant reduction of imports and public investment, thus additional money was printed in order to reduce the national budget deficit. This finally resulted in a significant increase in inflation and a severe economic crisis at the end of the 1980s (Bünthe 2011).

In 1988 after 26 years, the socialist system came to an end (Taylor 2012), a new military junta abolished the 1974 constitution, took power and promised to hand over the power after holding a multiparty national election (Hnin Yi 2014). A market-oriented economy was officially adopted in March 1989 (Hnin Yi 2014, Taylor 2012, Bünthe 2011, Thein 2004: 6). However, the military regime did not acknowledge the result of the 1990 election and maintained power continuously (Data Team 2016, Bünthe 2011, European Union n.d.–a). The regime was ideologically convinced that only the military could serve the interests of the nation and also claimed that a new constitution needs still to be drafted (Hnin Yi 2014, Nakanishi 2013). As a result, the United States and the European Union stepped up the economic sanctions against the military regime (Taylor 2012, Bünthe 2011). Consequently, most of the foreign investment came from the neighbouring countries, namely China, Thailand, India, Malaysia, Singapore and South Korea (Taylor 2012, Tyn Myint-U 2010: 17). However, the government paid little attention to the economic sanctions (Taylor 2012). It developed the agricultural sector and intensified its effort to build infrastructures across the country (Hnin Yi 2014, Bünthe 2011). Therefore, within a few years, an incredible number of bridges, dams, reservoirs and irrigation canals were constructed. A new rice trading policy was adopted, which delegated the authority to purchase rice for food security to the government and allowed farmers the right to market their products freely (domestically or internationally) (Nakanishi 2013, Tyn Myint-U 2010: 18). In addition, education infrastructure (schools, colleges and universities) and health infrastructure (health care centres, hospitals, medical clinics) were established (Hnin Yi 2014, Bünthe 2011). Unfortunately, due to insufficient availability of funds and poor organisation, the

infrastructure built was not fully equipped (e.g. libraries lacked books, vocational trainings was insufficient because of lack of human resources).

Nevertheless, between 1988 and 2010 the private business sector had grown but government/semi-government organizations still played the dominant role in the economy and SMEs (Small and Medium Enterprises) could not compete with the big government-backed corporations (Nakanishi 2013, Bunte 2011). Characteristic features of crony capitalism² were present, with only a handful of businessmen benefitting from the market-oriented economy under strict government control (Bunte 2011). The business environment was not conducive to development with no proper banking facilities in place, while exchange rate fluctuations in the prevailing black market made normal business operations all but impossible.

In 2008, the new constitution drafted by the military regime was approved by a highly unfair public referendum and subsequently the national election was held in November 2010 (Huang 2012). As a result, in March 2011 Myanmar's long ruling military government handed over power to a new civilian government, which consisted exclusively of members of the military-backed Union Solidarity and Development Party (USDP) (Taylor 2012, Huang 2012, Bunte 2011). All administrative and legislative bodies at the central, regional and local levels were also controlled by this military-backed party (Huang 2012, Bunte 2011). Therefore, it did not seem that real change could happen easily (Nakanishi 2013). With a constitution under which 25% of the parliament seats are reserved for the military, a process towards introducing democracy and a more transparent and equitable society had begun (Robinson 2014, Gaens 2013).

Under this new government a reform process with democratic transition, economic and social reforms, and an ethnic peace process, initiated by the president himself, took place (Bunte and Dosch 2015, Nakanishi 2013, Gaens 2013.). The government stated that the reform process would be inclusive and participatory, bringing all interested parties together, including civil society and the private sector (Bunte and Dosch 2015, Nakanishi 2013, European Union n.d.–b).

The milestone of the peaceful political transition was the release of opposition leader Daw Aung San Suu Kyi from house arrest along with freeing a substantial number of political prisoners (Bunte and Dosch 2015, Nakanishi 2013, Effner 2013, Effner and Schulz 2012). In addition, in August 2011 the government publicly reconciled with ethnic armed groups and invited them "to secure lasting peace" in the country (Nakanishi 2013, Min Zaw Oo 2014). Furthermore, in September 2011 the president suspended the controversial Myitsone Dam Project in response to the rejection of the project³ by civil society groups (Bunte and Dosch 2015, Effner and Schulz 2012, internationalrivers n.d). Myanmar people began to support the idea that new Myanmar government should be given a chance to prove itself different from its predecessor. This situation led people to examine more in-depth how the emergence of the new government has affected Myanmar politics, the economy,

2 Crony capitalism is a system in which some businessmen and entrepreneurs, who have intensive relations to the government and control most of the important sectors of economy.

3 Jointly developed with Chinese construction companies for hydro-power supply.

social affairs and foreign relations and how the recent political changes have influenced the relations between the government and the opposition.

With the 2012 by-election the major opposition party, the National League for Democracy, came into parliament with 43 seats (Inter-Parliamentary Union 2016, Bunte and Dosch 2015, Nakanishi 2013, Effner 2013). And by mid 2012 a number of ethnic armed groups signed bilateral ceasefire agreements with the government across the country (Min Zaw Oo 2014, Effner 2013, Nakanishi 2013). During 2012 several draft laws (e.g. environmental, foreign investment) were drawn up. The reform process showed to be genuine. Consequently, in April 2012 the EU's sanctions imposed on the government were suspended (Effner 2013, Taylor 2012) and then lifted in 2013 (with the exception of the arms embargo) as a mean to welcome and encourage the reform process (Taylor 2012, European Union, n.d.-b). The United States also recognized the progress and encouraged the government's reform process by easing its economic sanctions on Myanmar (Min Zaw Oo 2014, Nakanishi 2013). Simultaneously, Japan decided to resume Yen loans to Myanmar, after cancelling the old debts (Nakanishi 2013). This is in line with the attempts of the president, Thein Sein, to overcome the formerly unbalanced policies (e.g. excessive relation to China (Thant Myint-U 2009)) and to reach a balance in foreign policy (China-U.S.) and in domestic policy as well (Nakanishi 2013).

Of course, there was criticism of the government such as:

1. Still ignoring the human rights, for example in 2014, peaceful education protests were brutally disbanded in Letpadan, Bago Region, and about 69 students and activists remained in detention (Ye Mon and Verbruggen 2016).
2. Tensions between government and several ethnic armed groups, which have not signed ceasefire agreements, are still high due to lack of trust (Wa Lone 2016, Nakanishi 2013).
3. Still increasing crony capitalism interrelated with all levels of corruption (Htoo Thant 2016).

Nevertheless, Myanmar held the chairmanship of the Association of South East Asian Nations (ASEAN) in 2014. This had never happened since 1997, when Myanmar became a member of ASEAN. It shows that Myanmar now got a full place in the association and is internationally accepted. Additionally, in late 2015, the launch of the ASEAN Economic Community (AEC) was held in Myanmar. On this meeting a regional trade and cooperation agreement was signed, which offers the prospect of further economic development (Robinson 2014).

In the November 2015 election the opposition party, the National League for Democracy (NLD), won by a landslide victory (over 80% of the elected seats in the national parliament; however, 25% of parliament seats are reserved for the military and only 75% of parliament seats are elected according to the 2008 constitution), because the people wanted a real change (Pedersen 2016, Bärwaldt 2016). Consequently, the NLD got to choose the president, who is elected by an electoral body made of three separate committees, as well as the head of the Supreme Court and the chief ministers of each of the 14 states and regions. In March 2016 the new president was elected. The ministries were reorganized from previously 36 ministries with 96 ministers and deputy ministers to now 21 ministries with 21 ministers

to cut the costs and reduce the budget deficit (Ei Ei Toe Lwin 2016). However, according to the 2008 constitution the president must accept that the commander-in-chief will appoint three ministers for three ministries (e.g. ministries of defence, home affairs and border affairs) (Pedersen 2016). Only one new ministry was created for ethnic affairs, which reflects the priority that the new government, gives to the peace and “national reconciliation” process (Ei Ei Toe Lwin 2016). The new government officially took power on 1st of April 2016.

Figure 1.1: Spatial administrative structure of Myanmar and Kachin state



The spatial administrative structure in Myanmar consists of six levels namely national, state/region, district, township, village tract (sub-township), and village (see figure 1.1). As mentioned before the administrative units below the national

level had hardly any autonomous decision-making power in the past. This will be changed under the new government and by doing so, Myanmar is getting closer to a federal system.

In general, the present and future situation of ‘Myanmar under transformation’ can be summarized as follows:

1. change into a democratic society with a federal system,
2. embrace ethnic participation in political processes,
3. reorganised and open economic system.

1.3 THE PERIPHERAL SITUATION OF RURAL AREAS IN MYANMAR

In Myanmar the states and regions have started to develop since the turn of the century. But the development of Kachin state is lagging behind and will be taken in this subchapter as an example for the situation of peripheral areas, because the situation in Kachin state is quite characteristic as a periphery.

The Kachin state is – as the Shan and Rakhine state, too – an area where civil war based on ethnic conflicts still takes place. The insecurity and instability caused by this situation results to a large extent in a lack of powerful law and control, either exerted by the national government or the ethnic group organisation. This lack causes firstly, illegal resource exploitation with the consequence of environmental degradation (e.g. jade mine disaster in Hpakant), secondly, illegal trading supported by the lack of efficient control mechanism and thirdly, a weak and not well-developed infrastructure caused by the unstable political situation. As a consequence, the reaction of people results quite often in out-migration, which can be characterised as follows: well-educated people from the area out-migrated because they want to go to central Myanmar such as Yangon or Mandalay, where they expect to get more opportunities. This out-migration leads to a brain drain. Simultaneously, these peripheral areas are faced with huge immigration. People from all over Myanmar come for labour in gold and jade mining, and other activities like fishing or logging. They come because they see their economic opportunities. However, the educational level of these immigrants is quite low. These opposite migration schemes are a big challenge for regional development, because the newcomers have little knowledge, the others who know more move away. The result is that the local knowledge is weakened.

These problems come on top of the big challenges of the transformation. Insofar a good regional development policy is necessary. A fundamental element for that is to strengthen the knowledge of the people living in the area. So all stakeholders should be aware of that and try to find a solution. Without any doubt the on-going civil war has to be stopped, otherwise a successful development path cannot be implemented.

1.4 AN INTRODUCTION INTO THE RESEARCH AREA

1.4.1 Physical geographical pattern

Topography

Indawgyi Lake in Kachin State is the largest inland freshwater lake of Myanmar, located in the northern part of Myanmar (see figure 1.2). The lake is situated at an altitude of about 170 m and stretches over a distance of 23.1 km from north to south; 7.5 km from east to west, and is covering an open water area of 120 km² (Davies et al. 2004: 222)⁴. The basin is asymmetrical with a depth of between 15.9 m to 22.2 m and it is surrounded by densely forested mountain ranges with altitudes of between 200 and 1,300 m (Arino et al. 2009, Jarvis et al. 2008). The lake's catchment area stretches over 825 km²⁵ (Davies et al. 2004: 223). The lake is fed by several streams at the northeast end. Here, the Indaw stream flows into Moegaung stream, which feeds the Ayeyarwady River.

Climate and soil

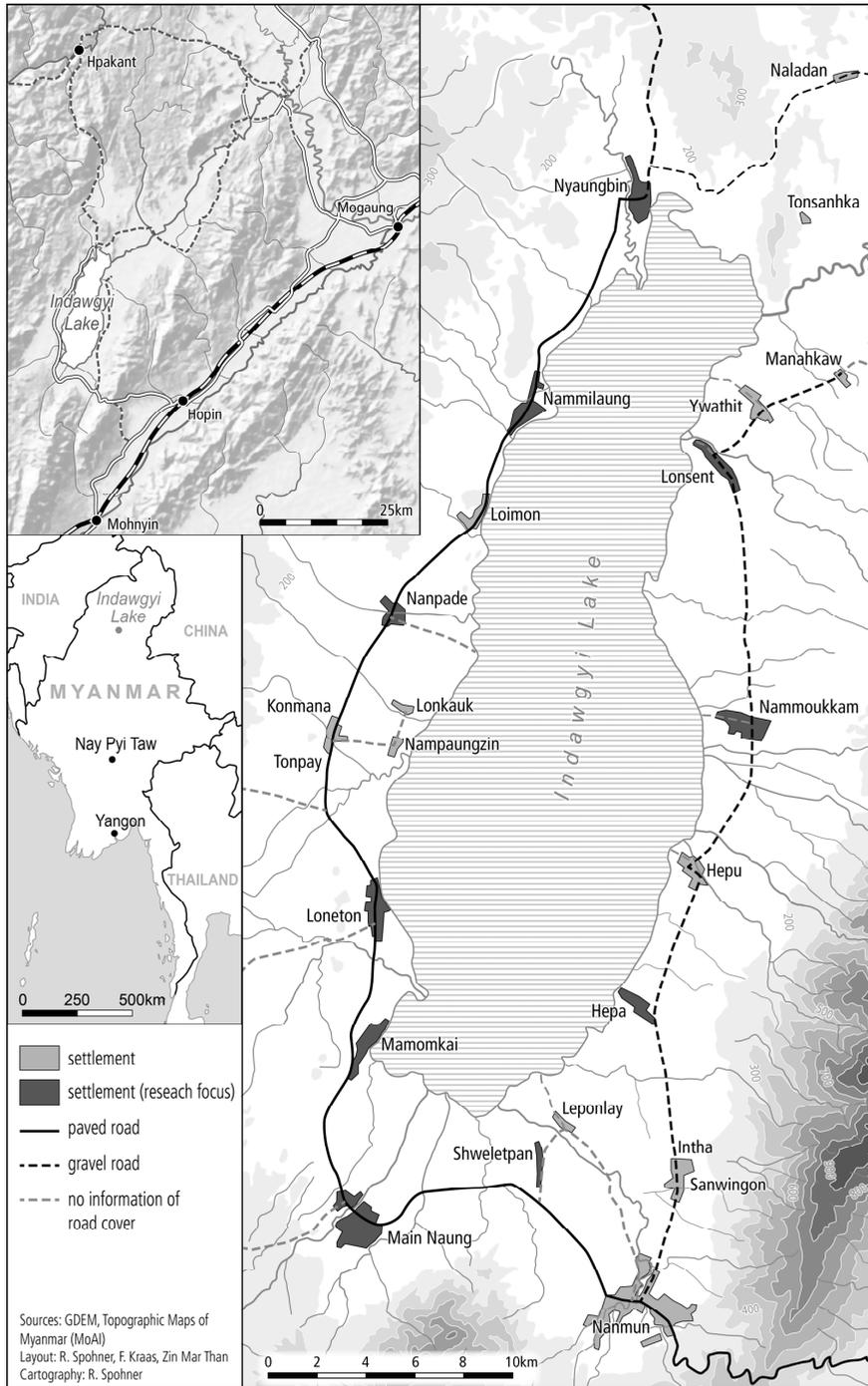
The area has a tropical wet and dry or savanna climate (Rubel and Kottek 2010, Chen and Chen 2013) with an annual rainfall of about 2,000 mm with the mean relative humidity of 80% to 90%. According to the information of the Meteorology and Hydrology Department, Mohnyin Station, Mandalay (2010) the average monthly temperature is varying between 17°C and 28°C. It can however stretch from as low as 4.6°C during December and January to a peak of up 40°C in April. Early morning mist is common during the cold season (Davies et al. 2004: 222).

The soils in the lower parts are rich and thus very suitable for agricultural use: meadow alluvial soils are found around the lake area and in the plains. They are mainly composed of silt and clay (70% and 20% respectively), have a pH-value around 6 and the ratio of nitrogen and carbon is 7:13. This soil is suitable for rice cultivation, sugarcane, groundnut, beans and vegetables (Naing Naing Latt et al. 2010). Meadow swampy or grey soils are found particularly in wet areas with poor drainage, especially north of the lake. The lower ground layers show blue or grey colour with tiny red or brown spots. The soil is sticky and has high contents of clay (gley). The pH value ranges around 6.5, that is, it is slightly acid. Red and yellow brown forest soils predominate in the mountain ranges and these are less suitable for agricultural purposes as they are particularly prone to erosion (Ministry of Agriculture and Irrigation 2002).

4 775 square km is the total protected area size of the Indawgyi Wetland Bird Sanctuary, which consists of the water body (120 square km and large parts of the catchment area).

5 825 square km is the total catchment area, but not the entire area is under protection (Davies et al. 2004: 223).

Figure 1.2: Map of the research area



Natural zones and land use

Five different land use zones can be distinguished (Kraas and Zin Mar Than 2016). (1) The alluvial plains around the lake which are mostly covered with rice fields. (2) Seasonally inundated and waterlogged plains, which are covered with herbaceous marsh, scrub swamp and swamp forest. (3) In the open water of the lake, especially at the northern end between Nyaungbin and the outflow of Indaw stream as well as at the southern end around Nanyinkha stream are extensive areas of herbaceous marches and water hyacinths. (4) As the water has a relatively high transparency (up to 3.5 m), extensive beds of submerged and floating leaved macrophytes can be found in some places (Davies et al. 2004). (5) The mountain ridges are mostly covered with broad leaf forests with many teak trees (*Tectona grandis*).

In accordance with the natural potentials, different agricultural zones can be identified: (1) Le lands are mostly found in the Indawgyi plain. They are broken up into many small units. Here, farmers cultivate rain-fed paddy, with yields corresponding with the rainfall. (2) Ya lands are found along the streams and on cleared forestland. Here, maize, groundnut, sesame and mustard are grown. (3) In garden lands, including home, vegetable and fruit gardens, a large variety of subsistence agricultural products are grown, like mangoes, citrus fruits, flowers and vegetables. (4) Taungya lands are found on the mountain slopes where only a thin soil cover allows two to three years of cultivation after clearing and burning (slash-and-burn cultivation). Here, upland rice, maize, sesame, pulses and vegetables can be grown.

Biodiversity: Since 1999, the Indawgyi Lake Area is under conservation as the 'Indawgyi Wildlife Bird Sanctuary', managed by the Nature and Wildlife Conservation Division of the Forest Department. Its rich biodiversity makes it a unique site: Altogether 64 fish species are recorded in the lake basin, inflowing streams and marshy areas. Among them, three species are endemic (Davies et al. 2004: 226). The lake is one of the most important bird refuges in Southeast Asia, mostly migratory birds; 95 species of water birds have been recorded (Nyo Nyo Aung 2008: 20). Numerous famous migratory and resident species can be found, such as the Pallas's Fish Eagle (*Haliaeetus leucorhynchus*), the Sarus Crane (*Antigone antigone*), the Lesser Adjutant Stork (*Leptoptilos javanicus*), the Purple Swampphen (*Porphyrio porphyrio*), the Greylag Goose (*Anser anser*) or the Oriental Darter (*Anhinga melanogaster*) (BirdLife International 2015). Among them 10 endangered species are, such as the 'critically endangered' winter-staying Baer's Pochard (*Aythya baeri*) and the non-breeding White-rumped Vulture (*Gyps bengalensis*): the 'endangered' resident Green Peafowl (*Pavo muticus*) and the 'near threatened' non-breeding Spot-billed Pelican (*Pelecanus philippensis*) (BirdLife International 2015). The Lesser Adjutant Stork, Baer's Pochard, Spot-billed Pelican and Sarus Crane are on the Myanmar list of the 'Totally Protected Animals', protected by law (State Law and Order Restoration Council 1994; Kyaw Nyunt Lwin and Khin Ma Ma Thwin 2003: 150). Also the highest number of the Eastern Hoolock gibbons is recorded in the area (Geissmann et al. 2010).

With this rich biodiversity and intact ecosystem, the Indawgyi Lake Wildlife Sanctuary belongs to the ASEAN Heritage sites. In February 2014 the government submitted an application to the UNESCO to nominate the area as World Natural Heritage; at present the area is on the tentative list. Since February 2016 the area was already listed as a Ramsar⁶ Site. Even though a management plan exists, it is, according to BirdLife International (2015), out-of-date and not comprehensive.

1.4.2 Social economic situation of the Indawgyi Lake Area

While the physical and environmental situation of the Indawgyi Lake Area have been described in a few publications (as summarized above), knowledge of the current socio-economic and the political situation of the area is very minor. Improving this knowledge is part of the aim of this research. In this section only some general features of the socio-economic situation will be presented.

The Indawgyi Lake Area (see figure 1.2) consists of eleven village tracts with 38 villages stretching over an area of 1,211.4 km². With about 8,758 households and a population of 50,014, the Indawgyi Lake Area is already quite densely populated with 41.3 person per km² (compared to Kachin State with 18.9 per km²) (Department of Population 2015, Kraas and Spohner 2015).

The Indawgyi Lake Area belongs to the Mohnyin Township (Mohnyin District). The area is located in a distance of about 180 km (112 miles) southwest from Myitkyina, the capital of the Kachin State (see figure 1.1). The nearest town, Hopin, and its administrative town, Monhyin, are 24 miles and 33 miles in distance from Loneton, the main village at the west bank of the lake (see figure 1.2). These two towns are gates to have access to the lake. The lake can be reached in a five-and-a-half-hour drive from Myitkyina. The two-lane highway starts from Myitkyina and passes through Namte, Moegaung, Sarhmaw, Hopin, Nanmun and Loneton. There is also another option: Mandalay-Myitkyina Railway mode. During summer, nine miles can be saved taking the short way between Hopin/Mohnyin and Nanmun.

The local residential population and seasonal migrants depend strongly on the natural resources. Agriculture and fishing together with some mining are the main sectors of the economic base until yet. As a result, some challenges can be found in the research area such as overfishing, illegal mining, and environmental degradation.

One future economic base sector might be eco-tourism because of the nature of the area. This sector has not been developed until yet.

6 The Ramsar Convention is dealing with wetlands of international importance. The convention was established in a meeting, which was held in the Iranian city of Ramsar in 1971 and came into force in 1975. It is an intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources (Ramsar 2016).