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Socioeconomic survey of communities living on the edges of the Iraqi Marshlands National Park

Nature Iraq

2015

Report authored by Dr Géraldine Chatelard
External consultant

Objectives of the survey

Nature Iraq conducted a qualitative socioeconomic survey of communities living on the edges of the Iraqi Marshlands National Park with a view to understanding the livelihood context of village communities. A specific focus of the survey was the degree of reliance of different villages and types of households on natural resources derived from the marshes through buffalo herding, reed collecting, fishing and hunting. Another section of the survey documented the production process of local products (reed mats and baskets, and dairy products) and their role in the household economy.

Methodology

Methodology

The survey methodology and questionnaire were developed by Dr Géraldine Chatelard, external consultant, over October and Novembre 2014 on the basis of discussions with Nature Iraq and the team of surveyors, a review of the existing literature, and a visit the external consultant undertook to some of the villages and households so as to gain first-hand understanding of the context. During the first two weeks of Novembre, the external consultant provided on-the-job training in focus group discussions and household interview techniques to the three local surveyors, including one woman. The local team completed the survey over the next four weeks. The external consultant reviewed all collected data, requested clarifications as needed, and undertook the final analysis.

Village selection

Ten villages were selected to cover what were assumed to be a variety of livelihoods and relationships to the National Park on the basis of their geographic location, size, and displacement history (see Section 3). Furthermore, the sample covers the three governorates (or provinces) over which the National Park extends (Thi Qar, Basrah and Missan).

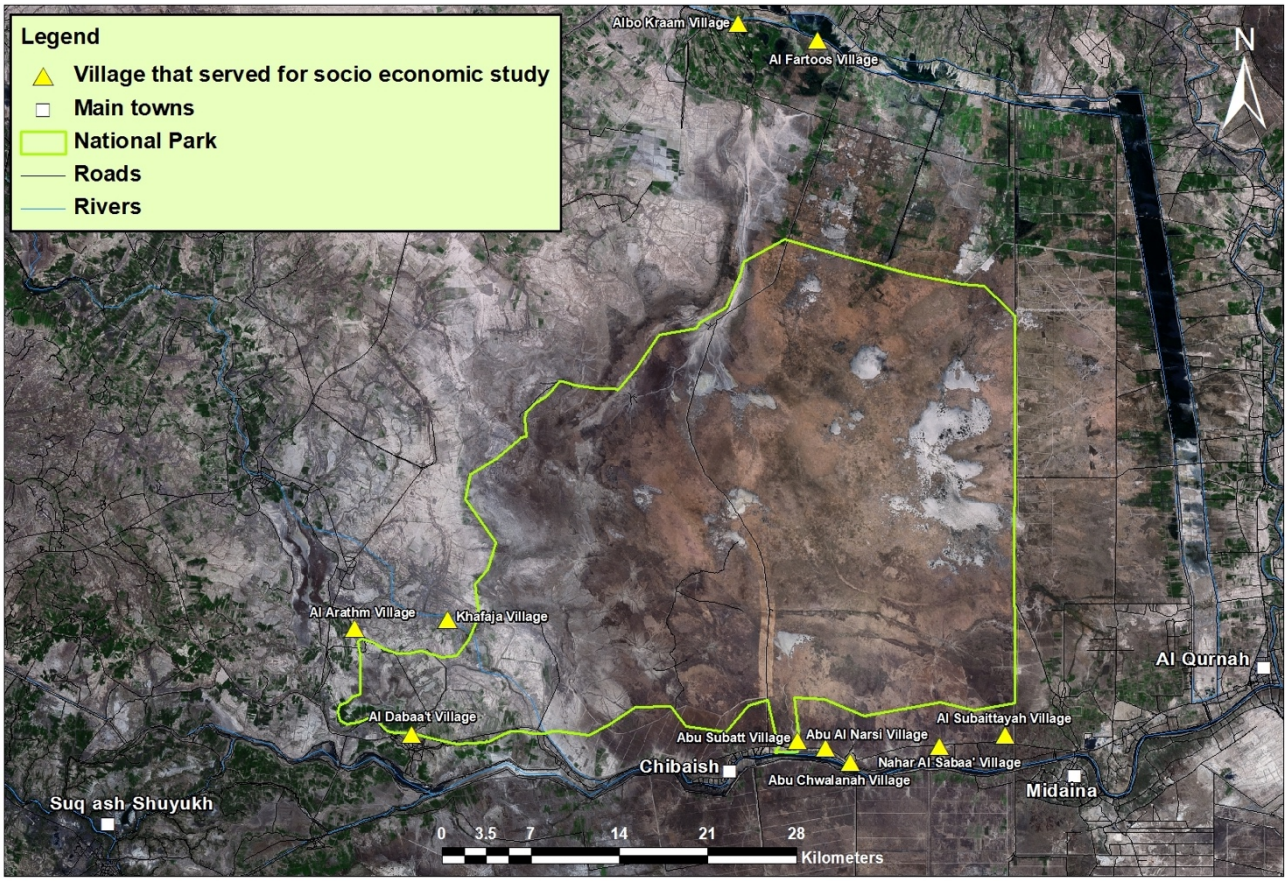
Table 1 – location of surveyed villages

Name of village	District	Governorate	Geographical location with regards to National Park	GIS coordinates
Abu Subatt	Chibayish	Thi Qar	South-east	N 30 58 24.7 E 47 02 25.5
Abu Al Narsi	Chibayish	Thi Qar	South-east	N 30 58 4.1 E 47 03 48.3
Abu Chewalnah	Chibayish	Thi Qar	South-east	N 30 57 25.7 E 47 05 2.8
Nahar Al Saba'	Chibayish or Mdayna	Thi Qar or Basra	South-east	N 30 50 2.4 E 47 05 33.9
Al Subaytayyah	Mdayna	Basra	South-east	N 30 57 33.4 E 47 05 33.8
Al Daba'at	Al Fuhud	Thi Qar	South-west	N 30 58 57.8 E 46 43 18.0
Al Arathim	Al Fuhud	Thi Qar	South-west	N 31 03 31.9 E 46 40 31.8

Al Khafajah	Al Fuhud	Thi Qar	South-west	N 30 58 57.9 E 46 43 17.5
Albu Karim	Al Salam	Missan	North	N 31 29 11.6 E 64 59 44.4
Al Fartus	?	Missan	North	N 31 29 16.7 E 46 59 30.2

All surveyed villages are located on the edges of the Central Marshes. The maximum distance from the boundaries of the National Park is 4 km, and the distance to the marshes is comprised between a few meters to 4 km.

Location map of surveyed villages



Data gathering

Two data gathering techniques were applied:

1/ Focus group discussions with key informants (men and women separately) in each village to gather:

- General data on the village;
- Livelihoods context;
- Main income sources and local production;
- Resource transformation and marketing process.

2/ A survey of three households in each village involving the administration of a questionnaire focusing on:

- Household demography, education levels and other socio-economic

characteristics of household members;
- Privately owned natural assets (land) and personal/household physical assets (house quality and facilities, vehicles, and livestock);
- Economic activities and income sources;
- Reliance upon the natural resources of the National Park;
- Production, consumption and sales of local products.

General data on the villages

Demographics

On the basis of information gathered from local informants, the largest village surveyed numbers approximately 600 households (Albu Karim), whereas the smallest numbers 15 households (Abu Chawalnah).

A demographic and socioeconomic survey conducted by UNEP in 2007[1] on a sample of 199 villages in the marshlands area found the average family size to be 4.8 and average household size to be 9.1 with generally two or more families of close kinship sharing a single house.

Table 2 - Demographics

Name of village	Number of families	Number of households
Abu Subatt	300	85/90
Abu Al Narsi	120	85
Abu Chewalnah	50	15
Nahar Al Saba'	150	50
Al Subaytayyah	250	150
Al Daba'at	150	65
Al Arathim	350	200
Al Khafajah	250	150
Albu Karim	750	600
Al Fartus	250	130

Social composition and displacement history

In terms of social composition, village communities either belong to one single tribal group, or to several such groups (up to ten in one single village). When asked where they were originally from, people answered by stating their tribal affiliation. This is congruent with the fact that, before the draining of the marshes, small settlements inside the marshes were known by the name of the main tribal section (*hamulah*) residing there.

1 UNEP (2007). *Survey on Demographic, Social and Economic Conditions of Marshlands in the South of Iraq*. UNEP Project on Support for Environmental Management of the Iraqi Marshlands Phase II-A. UNEP and Thi Qar University.

Villages were affected by labour migration as early as the 1970s and 1980s when men started looking for paid jobs in the city and oil industry. Forced displacement took place in the early 1990s:

1/ Villages located to the south-east of the National Park were originally situated deep inside the marshes. They were entirely emptied of their inhabitants in 1993, the year the draining campaign was completed. Since 2003, some of the original inhabitants have been coming back to resettle these villages now located on the edges of the marshes.

2/ Villages located to the south-west and north of the National Park were less affected by population displacement which was only partial and occurred initially in link with the repression of the 1991 uprising against the previous regime, and eventually due to the draining of the marshes. Some of those who left in 1991 on account of the poor security situation came back as of 1993 once the area fell back again under the control of government forces. The fall of the previous regime in April 2003, immediately followed by a partial reflooding of the marshes, were incentives for more families to return.

Table 3 – Displacement history

Name of village	Year of displacement	Extent of displacement	Return of some displaced people
Abu Subatt	1993	Total	As of 2003
Abu Al Narsi	1993	Total	As of 2005
Abu Chewalnah	1993	Total	As of 2004
Nahar Al Saba'	1993	Total	As of 2003
Al Subaytayyah	1993	Total	As of 2004
Al Daba'at	1991-1993	Partial	As of 2004
Al Arathim	1991-1993	Partial	As of 2004
Al Khafajah	1991-1993	Partial	Before 2003
Albu Karim	1991	Partial	As of 1993
Al Fartus	1991	Partial	As of 1993

The displaced relocated in various Iraqi governorates often looking for wetlands to pursue their livelihoods as buffalo breeders. Part of the displaced went to Iran. According to informants, all returnees are originally from the villages in which they came back with the result that their return did not result in social tensions. However, other sources (UNEP 2007) have noted that many returning families in villages bordering the marshes are originally from different villages and tribal sections a fact that may affect social cohesion and access to resource.

Housing, other buildings and roads

The type and quality of housing and infrastructure in the villages surveyed vary in large part in relation to the displacement history of the villages.

Villages entirely abandoned in 1993 and resettled post-2003 (south-east of the National Park) comprise mostly of houses built of reed, a combination of clay and reed, or mud bricks. Houses built of concrete blocks are not frequent, even less so agricultural buildings (barns, hangars, etc.). Animal pens built of reeds are adjacent to the houses of livestock owners. These villages only have dirt roads, and those are flooded during heavy rain.

In these villages, household interviews reveal that levels of capital do not necessarily correlate with the ownership of a concrete house: the household owning the largest herd of buffaloes among all surveyed households lived in a reed and mud house.

By contrast, villages that were only partially affected by displacement (south-west and north of the National Park) include a majority of concrete block house. Families who have returned in recent years are the most likely to live in reed huts and reed and mud houses at the village periphery. The largest among those villages have some paved roads and agricultural buildings housing machinery for those villages reliant on cultivation (south-west of the National Park).

Guest-houses maintained collectively are present in some villages only. Guest-houses are of two types: the *diwaniyya* (built of mud bricks or concrete), and the *mudhif* (built of reed). The later only occurs in some of the villages south-east of the National Park.

Each village includes a *husayniyya* (religious congregation hall that may also serve social functions) but no mosque. Villages south-west of the National Park also have a number of shrines in their vicinity (Sayyid Nizar, Sayyid Yahya, Mohammed Ibn Imam ‘Ali, Sayyid Yusha') with visitors coming from the surrounding villages and the province on Thursday and Friday and religious holidays.

Electricity, water and sanitation

All villages are connected to the national electrical grid. This connection took place in the mid-1990s north of the National Park, and post-2003 for villages located to the south of the National Park. However, electricity provision is erratic and households also rely on private generators.

Table 4 – Connection to national electrical grid

Name of village	Year of electricity provision (national grid)
Abu Subatt	2004
Abu Al Narsi	2006
Abu Chewalnah	2007
Nahar Al Saba'	2005
Al Subaytayyah	2004
Al Daba'at	2003
Al Arathim	2003
Al Khafajah	2003
Albu Karim	1995
Al Fartus	1993

As regards water availability for domestic use, all villages have access to Desalinated Water by Reverse Osmosis (RO) through stations located in the villages at the price of IQD 400 IQD (USD 0.34) per barrel of 500 L. In some cases, RO stations are located in nearby villages or small towns, and water is delivered by tankers at the price of IQD 500 (USD 0.43) per barrel of 500 L. Villages to the north of the National Park also have piped

water supply.

Untreated marsh or river water is used systematically for livestock and irrigated agriculture whenever this latter activity is practised. Where piped water is not available, some families also use river or marsh for washing (bathing and cleaning clothes).

Informants did not report using untreated marsh or river water for drinking. This comes in contrast with the findings of the 2007 UNEP survey where more than one third of the villages used river or marsh water without treatment for drinking.

The most common method of sanitation is pit latrines, with sewage going into a sceptic tank dug in the ground and not systemically laid in bricks or cement.

Education and health services

Illiteracy is widespread among adults however most children now attend school.

All villages surveyed have a primary school or one located less than 2 km away. Distance to secondary schools is comprised between 2 km and 9 km. There is no school transportation. Informants reported that most children attended primary and secondary school. In a couple of cases (Nahar Al Sabaa' and Al Khafaja) informants stated that the road leading to the secondary school was dangerous for children to walk. This leads some parents who do not own vehicles or cannot afford to pay for transportation by private cars to take children out of school.

Most villages also have a health center staffed with nurses and assistant MDs. Consultations with MDs are available in district or sub-district centres distant between 2 km and 14 km from the surveyed villages. People interviewed reported easy access to medical care for a nominal fee of IQD 500 IQD (USD 0.43) for a consultation. Consultations are free for school children.

Access to urban centers where secondary schools and medical facilities are available is by private vehicles, some used as individual or collective taxis. The one-way transportation fee varies between IQD 1,000 and IQD 2,000 per person depending on distance.

Table 5 – Primary schools and health centres

Name of village	Primary school	Health centre
Abu Subatt	1,5 km	Yes
Abu Al Narsi	Yes	Yes
Abu Chewalnah	1,5 km	Yes
Nahar Al Saba'	1 km	Yes
Al Subaytayyah	Yes	1 km
Al Daba'at	Yes	3 km
Al Arathim	Yes	Yes
Al Khafajah	Yes	9 km
Albu Karim	Yes	Yes
Al Fartus	Yes	5 km

Livelihoods

Livelihood activities in all villages surveyed are limited. Inhabitants are mostly engaged in livestock rearing, dairy production, irrigated cultivation of cash crops, fishing and hunting. Wage labour, small scale commerce, and handicraft are the least common activities. Most households have members engaged in several income generating activities, with single members often engaged in at least two activities.

Livestock breeding

Livestock is important in local livelihoods and with the return of Marshland inhabitants the number of buffaloes, cattle and sheep has increased. Table 8 shows the number of livestock in the surveyed villages and these numbers reflect a change in the type of animals being reared in the marshland villages.

Buffaloes were the sole livestock found prior to drying of the marshes. However, cattle and sheep have now become common in villages surrounding the National Park. Some households own herds of buffaloes numbering several dozens or several hundreds of heads, whereas other households have no buffalo at all or only a very small number. Among large livestock owners (more than 10 heads), the number of cattle owned is generally smaller than the number of buffaloes. Only villages to the south-west have herds of sheep that graze on lands previously covered by water, in addition to buffaloes and cattle.

Table 6 – Ownership of livestock

Name of village	Geographical location with regards to National Park	Number of buffaloes	Sheep ownership
Abu Subatt	South-east	650	No
Abu Al Narsi	South-east	75	No
Abu Chewalnah	South-east	70	No
Nahar Al Saba'	South-east	1500	No
Al Subaytayyah	South-east	1000	No
Al Daba'at	South-west	25	Yes, large
Al Arathim	South-west	600	Yes
Al Khafajah	South-west	50	Yes
Albu Karim	North	75	No
Al Fartus	North	950	No

Buffaloes graze in the marshes during the day. Back to the village, they are fed bran, hay, and fresh reeds together with cattle.

Livestock represents the capital of many Marshlands inhabitants. They invest cash into livestock, and only sell animals to cover large or unexpected expenses. This is especially true for buffaloes whose meat is not eaten, and who are bred for milk and dung used as fuel. Sheep, on the other hand, have value for their meat.

In most villages surveyed, and according to informants, households own small herds of

buffaloes and cattle (less then 10 heads combined) and do not sell milk and/or home-made dairy products. Rather, those supplement the family's diet. In case the milk production is larger than the consumption needs of the family, fresh milk or dairy products are sold to traders and complement household income. (See Section 6 on the production, consumption and sale of dairy products).

About half of the households surveyed raised chicken and geese for household consumption, and limited sales of eggs and birds.

Livestock vaccination and veterinary visits in case of diseases are offered free of charge by the Ministry of Agriculture.

Dairy production

Milking of buffaloes and cattle takes place throughout the year. Most families have a limited number of buffaloes and cattle and consume all the milk and dairy products. In all villages surveyed, only a minority of households were selling surplus dairy products to traders who come from the city every two of three days. A household interviewed owning 55 buffaloes derived between IQD 25,000 (USD 21) and IQD 100,000 (USD 84) daily from the sale of dairy products.

Households selling dairy products typically have herds of at least ten buffaloes and/or cattle. They consume a small portion of the milk production, and sell the rest, either as raw milk or as clotted cream (*qaymar*), yoghurt and cheese.

Buffaloes and cows are milked by men and women in the morning. Then women process the milk to make *qaymar*, yoghurt cheese sold in the evening of the same day. Raw milk is sold to traders in the morning and evening.

Gaymar is made by heating full-cream milk over a fire and leaving it to cool completely, regularly putting the pot in the fridge or ice. The cream content rises to the surface and is collected. The process takes 5-6 hours.

The remaining milk is processed into yoghurt and fresh cheese. Yoghurt is processed by returning the milk to the boil, adding yeast, and leaving in a warm place for 2-3 hours. To make cheese, milk with yeast is left on the fire until it thickens. The cheese is then removed and cut into pieces. This processing takes about one hour.

There are no modern dairy production facilities in any of the villages surveyed, nor any cooperative collecting milk.

Cash crop cultivation

As a rule, villages south-east of the National Park do not own arable lands. In only one case (Abu Chewalnah) a handful of households rent lands from a nearby village to cultivate vegetables (okra, cucumber, tomatoes) for domestic consumption and sale.

Villages south-east and north of the National Park own arable lands with sizes varying between 7 to 300 dunum (an Iraqi dunum equals 2,500 m2 or 0.25 ha) on which they plan cereals (wheat, barley, and corn to a lesser extent). Crops are planted in October and November and sold immediately after the harvest that takes place in May. No instances of rice and millet cultivation were reported albeit these were important crops for marsh

inhabitants prior to the draining.

The Ministry of Agriculture provides farmers with fertilizers (three bags per dunum per year) and kerosene for agricultural machinery (a barrel of 220 L per year) free of charge.

Table 7 – Arable lands and crop cultivation

Name of village	Geographical location with regards to National Park	Arable land (in dunum)	Main crops
Abu Subatt	South-east	0	
Abu Al Narsi	South-east	0	
Abu Chewalnah	South-east	2 to 3 (rented)	Vegetable
Nahar Al Saba'	South-east	0	
Al Subaytayyah	South-east	0	
Al Daba'at	South-west	300	Cereals
Al Arathim	South-west	7	Cereals
Al Khafajah	South-west	10	Cereals
Albu Karim	North	10	Cereals
Al Fartus	North	12	Cereals

Wage labour

Only a minority of working age males in surveyed villages have paid job due to the limited availability of such jobs in the region, and to the low level of education of village inhabitants. Yet people are said to look for such jobs to make up for the decrease in revenues from agricultural activities ensuing from drought in the past few years.

Government jobs are available in the surveyed villages (as school teachers or medical staff in health centres), and in district centres. They are open to university graduates. Unskilled jobs (as drivers, janitors, etc.) are also available to high school graduates and families of martyrs (soldiers of the national army or militias who died in combat, or victims of terrorist attacks). Oil companies, national and foreign, also offer unskilled jobs, together with construction companies. In some villages, like Nahar Al Saba', up to 20% of working age male are estimated to work in construction. Another sought after source of employment is the armed forces (police, national army, militias) where salaries are higher.

Day labour is available in the construction sector year-round and in agriculture during the harvest season.

Examples of income from wage labour are as follows:

Agricultural worker: day wage of IQD 10,000 (USD 8.6).
Construction worker: monthly salary of IQD 250,000 (USD 211).
School janitor: monthly salary of IQD 300,000 (USD 253).
Policeman: monthly salary of IQD 700,000 (USD 601).
Health worker: monthly salary of IQD 775,000 (USD 666).
Primary school teacher: monthly salary of IQD 1 million (USD 859)

Pensions and social welfare

Pensions are social welfare (for retired government employees, members of the armed forces, widows, divorcees, handicapped, family of martyrs, former political prisoners, etc.) contribute to the economy of several households. Pensions ranged between IQD 430,000 (USD 369) and IQD 500,000 (USD 429) among households interviewed.

Rental of motorized vehicles and agricultural machinery

Villagers may own different types of motorized vehicles: cars, pick-up trucks, tricycles, and boat. In the absence of a public transportation system, several vehicle owners carry passengers or goods for a fee. One of the households interviewed drew a complementary monthly income of IQD 30,000 to 40,000 (USD 25 to 34) out of transporting passengers in a private car. Other households draw their main income from the transportation of goods and passengers. In villages where cultivation is practised, rental of agricultural machinery is also a source of income. In all cases, purchase of vehicle or agricultural machinery requires capital investment.

Fishing and hunting

All villages with the exception of two located south-west of the National Park depend on fishing from rivers and the marshes for household consumption and income.

The sale of fish takes place year-round but the catch is better in the winter and can bring relatively high income levels. In one village south-west of the National Park, a household declared that, in the high season, monthly income from the sale of fish amounted to IRQ 600,000 (USD 506).

Bird hunting is also common in villages south-east of the National Park during the migration season in in November, December and January. Birds are sold along the road.

Sales of reeds rushes

Reed rushes, called ‘grass’ (*hashish*) are harvested daily to feed buffaloes and cattle. In all the villages south-east of the National Park, this grass is sold along the road to other livestock owners from nearby villages. A household surveyed stated that income derived from the sale of green reed could be as high as IRQ 200,000 (USD 168) in the summer.

Few families in some villages south-east of the National Park plait reed mats and baskets for sale. These families seem to specialize in this activity. Informants mentioned that traders supplied them with reeds to make baskets. Two of the households interviewed said that they sold about 10 baskets a day for 400 IQD (USD 0.34) a piece. Traders visit these households every two of three days.

Manufacture and sale of reed products

Reed mat making is today the main or sole source of income for several families living in villages south-east of the National Park. All family members participate in the process, with men going to gather the reeds from the marshes and women responsible for making the mats. In the marshland villages, reed mats are a staple building material for homes – used to make fences, roofs, walls, animal shed coverings and other. Reeds and reed mats produced in the marshlands are also sold further north outside the marshland area where

they are used as floor mats, garden fencing and as ceilings for mud houses.

Due to the weight of the reeds, men (not children) gather the raw material and carry it back daily to the village on their backs. Reeds have always grown naturally and in great abundance in the marshlands, but drought years (2006-2009) have had a severe impact on reed growth although the reed population has since been recovering. A grown man can typically carry enough for one reed mat, and the great distance they must walk to gather the reeds limits the number of reed mats that can be produced by a family per day. On average, a family produces one reed mat per day.

Women are responsible for peeling, drying the reeds, flattening them and weaving them into mats. A bundle of 30-45 cm takes 15 mn to peel. The reeds are then laid out to dry on the road, where passing cars can drive over and flatten them. This can take several hours. There also exists machines for flattening the reeds allowing women to process a bundle of 40 cm in 30 mn. Reeds are finally sprayed with water before being woven. Men and women share in the weaving. Mats are of three sizes: 1m X 3m taking one hour to weave; 2m X 4m taking one and a half hour to weave; 4m X 6m taking 5 to 6 hours to weave.

One average, families can earn about 2,500 IQD (USD 2,15) per reed mat produced. Merchants from nearby towns come to villages on average once per week to purchase the reed mats. Large quantities are typically transported to and resold up north.

The reed basket industry is limited to a few families in villages south-east of the National Park. Reeds a provided by traders to women who take 10-15 mn to weave a basket. They sell up to 10 baskets a day for 400 IQD (USD 0.34) a piece. Traders visit these households every two of three days.

There are currently no associations or cooperatives in the area for reed mat or basket producers.

Temporary settlements inside the marshes

In several village communities, a small number of members, single men or nuclear families, spend part of the year inside the marshes living in reed huts. These members and their settlements are called *'azzabiyya.* They breed buffaloes, fish, and collect green reeds. They maintain almost daily communication with the mainland by boat to bring the fish catch, reeds and dairy products which are eventually consumed by other members of the household or sold. School age children remain in the villages.

Male and female contributions to economic and domestic activities

Most economic and domestic activities are gendered, although a few a performed by both women and men.

<u>Men</u>

- Bring water by vehicle
- Graze livestock
- Sell livestock in the city
- Fish and sell fish
- Hunt and sell birds
- Plant and harvest crops
- Have wage work

Women

- Make animal dung cakes for fuel
- Process dairy products
- Sell poultry and eggs
- Sew

Men and women

- Collect green reeds as fodder
- Milk buffaloes and cattle
- Manufacture mats and baskets

Women and boys

- Cook and bake
- Feed livestock in the village
- Tend chickens and geese

Household income levels

Income levels vary widely between the household interviewed, so do levels of assets. The highest yearly income reported by a household is IQD 54 million (46,392 USD). This household is composed of nine members and derives it income mainly from the sale of dairy products from a herd of 200 buffaloes.

The lowest income reported was IQD 900,000 (773 USD) for a household of 7 members relying on the sale of surplus milk from 3 cows and irregular day labour in construction. This household lives well below the Iraqi poverty line of USD 2.20 per capita per day.

Households doing best are either those owning large herds of buffaloes or sheep, or those able to combine multiple sources of income: sale of dairy products, fish, green reeds, or crops, salary from wage labour and/or a pension.

It remains that many families do not have the start-up capital necessary to buy enough livestock allowing them to recover their investment through the sale of dairy products.

Migration

Informants identifies two main incentives for migration. One is poor services and utilities that lead some families to migrate or remigrate to urban centres. The other is lack of income sources in the villages. Labour migration can be seasonal: in the summer, when agricultural activities are low, the male labour force moves to the city to work in the construction sector. Migration can also be more permanent in case of droughts that affect buffaloes with diseases, reduced milk production, and lead to lack of fresh reeds and fish. In this case, entire households move with their livestock in search of water.

Reliance on marsh resources

Villagers have uncontrolled and unrestricted access to marsh areas inside the National Park. Reliance on marsh resources is heavier in village south-west of the National Park, followed by those north of the National Park and, finally, communities south-east of the National Park as illustrated in the table below. Villages with the highest reliance on marsh resources as those located closer to the boundaries of the National Park and also those

reoccupied post 2003. These villages sit along the northern banks of the Euphrates and have a direct access to the Central Marshes through a number of canals.

Table 8 – Reliance on marsh resources

Name of village	Geographical location with regards to National Park	Buffalo breeding	Reed collecting for sale	Fishing for sale	Bird hunting for sale	Temporary settlements inside the marshes	Reed *mudhif*
Abu Subatt	South-east	Yes	Yes	Yes	Yes	Yes	3
Abu Al Narsi	South-east	Yes	Yes	Yes	Yes	Yes	0
Abu Chewalnah	South-east	Yes	Yes	Yes	Yes	Yes	1
Nahar Al Saba'	South-east	Yes	Yes	Yes	Yes	Yes	0
Al Subaytayyah	South-east	Yes	Yes	Yes	Yes	Yes	0
Al Daba'at	South-west	Minor	No	No	No	No	0
Al Arathim	South-west	Yes	No	No	No	No	0
Al Khafajah	South-west	Yes	No	Yes	No	Yes	0
Albu Karim	North	Yes	No	Yes	No	No	0
Al Fartus	North	Yes	No	Yes	No	Yes	0

Perception of pressure on natural resources

During group discussions or household surveys, informants generally expressed that livelihoods had improved in the years immediately following the fall of the previous regime: water came back to the marshes, livestock was numerous, and the area was secure. However, 2006-2009 were drought years, and although precipitation levels have improved since then the people consider the water level of the marshes to be still low. They believe that this has led to a deterioration in their income levels and livelihoods in general. On the other hand, they agree that there is more human pressure on natural resources (mostly fish and reed), but do not link this pressure to a decrease in the availability of resources. There is a general agreement that, despite the low level of water, the density of fish is very high.