

THE STATUS OF PEOPLE IN KAYIN STATE MYANMAR

(COLLECTION AND ANALYSIS OF SECONDARY INFORMATION)

Smart Consultancy Group

December 15, 2012

Organized by

**The Lutheran World Federation
(LWF) Myanmar**

Supported by

Finn Church Aid

Collection and Analysis of Secondary Information on Status of People in Kayin State

1. Background

LWF Myanmar has been implementing projects which aim at reducing poverty in Myanmar through rights-based empowerment for sustainable development since cyclone Nargis strike in the Ayeyarwady delta in 2008. To extend its helping hand in Myanmar, LWF Myanmar has planned to implement a three year development project focusing on multi-sector development in a sustainable manner such as education, health and WATSAN, agriculture, livestock, forestry, livelihoods and natural resource management in two townships of Kayin State in 2013-2015. In order to identify ground issues and existing situation of local contexts in various disciplines for ensuring comprehensive development plan, the Smart Consultancy Group had conducted a 10 days secondary information collection survey in the above mentioned townships from 13th to 23th November of 2012 through the methodologies described below:

2. Methodology

In order to ensure accuracy and validity of secondary data regarding needed information on various subject matters in Kayin State, a various methodologies such as literature review, focus group discussions (FGDs) and key informant interviews (KIIs) with those who are well versed in local contexts had been applied during the survey. State, District and Township level department officials, UN agencies officials and INGOs and LNGOs staffs concerned are key contributors in gathering secondary information about current situation in the proposed project area. Moreover, profiles of State, Districts and Townships, as well as reports and assessments prepared by concerned departments and organizations are also major source of secondary information required to collect for the purpose of this survey. However, some despondences requested not to mention their name and department because of no approval from the State government.

3. Brief Introduction

3.1. Geographic Information

The Kayin state is located between latitudes 15° 45' North and 19° 25' North and longitudes 96° 10' East and 98° 28' East, in the southeast of Myanmar. It is bordered by Mae Hong Son, Tak, and Kanchanaburi provinces of Thailand to the east, Mon State and Bago Region to the west, Mandalay Region to the south and Shan State and Kayah State to the north. Its total area is 30,383 km² (11,731 sq mile), which is a medium sized State in Myanmar.

The State consists of seven townships. Of these townships, Hpa-an, Kyarinseikgyi, Hlaingbwe, Myawaddy, Hpapon and Thandaunggyi are located in the south east and northern part where there

are lowland areas with steep hills, while Kawkareik is surrounded by flat lowlands. The remaining areas of Kayin State are mountainous under the Dawna Mountain Range, which is running along the State in a NW- SE direction and the southern end of the Karen Hills in the northwest. Four rivers existing within the region are Thanlwin (Salween River), Thaugyin (Moei River), Gyaing and Attaran, which are flowing from south to north due to the location of mountains. There are also some streams.

Table1. Geographical Information of Kayin State

Sr	District/Township	location			Area (sq-miles)	Climate	
		Latitude	Longitude	ASL feet		Rainfall (inch)	Temperature
1	Hpa-an District	16 ° 30" 19 ° 31"	96 ° 28" 98 ° 31"		6800		
2	Hpa-an	16 ° 30" 17 ° 44"	97 ° 27" 98 ° 31"	53	1120	158.9	Max 40.7°C, Min 12.8°C
3	Hlaingbwe	16 ° 40" 17 ° 50"	97 ° 37" 98 ° 20"	32	1672	169.4	Max 42°C, Min 20°C
4	Thandaunggyi	18 ° 36" 19 ° 31"	96 ° 28" 97 ° 08"	4050	1413	124	Max 26.6° C, Min 4.4°C
5	Phapon District	17 ° 32" 18 ° 49"	96 ° 56" 97 ° 44"		2596		
6	Phapon	17 ° 32" 18 ° 49"	96 ° 56" 97 ° 44"	310	2596	98	Max 42°C, Min 17°C
7	Kawkayeik District	15 ° 13" 16 ° 50"	94 ° 95" 98 ° 30"		3720		
8	Kawkayeik	16 ° 11" 16 ° 50"	97 ° 49" 98 ° 30"	55	689	160	Max 45°C, Min 13°C
9	KyarInseikkyi	15 ° 13" 16 ° 02"	97 ° 45" 98 ° 07"	307	3031	111.43	Max 40°C, Min 25°C
10	Myawady District	16 ° 05" 16 ° 05"	96 ° 10" 98 ° 55"		1211		
11	Myawady	16 ° 05" 16 ° 05"	96 ° 10" 98 ° 55"	650	1211	60	Max 40.5°C, Min 35°C
12	Kayin State	15 ° 15" 19 ° 25"	96 ° 10" 98 ° 55"		11731	158.9	22.1°C

Source: Agricultural Department,

Table 2. Annual Rainfall of Kayin State in 2008-2010

Month	Normal	2008	2009	2010	2011	2012
January	0.20	0.22	0.00	0.14	1.03	0
February	0.03	0.35	0.00	0.00	0.04	0
March	0.10	0.18	1.45	0.56	4.37	0.58
April	1.99	5.24	6.65	0.04	2.59	2.68
May	13.52	24.04	12.13	9.24	15.42	13.02
June	32.94	26.04	32.15	24.56	38.55	35.08
July	33.51	37.81	49.40	22.04	30.90	40.03
August	46.39	33.50	33.94	33.73	44.53	45.55
September	22.83	21.06	24.01	21.03	31.50	15.74
October	10.52	8.49	11.80	10.50	6.04	5.66
November	1.45	1.69	0.07	0.03	0.00	0
December	0.39	0.01	0.00	2.63	0.00	0
Total	163.87	158.63	171.60	124.50	174.97	158.34

Source: Agriculture Department November 2012

It has a hot and humid climate. The temperature of the hottest month in eastern mountain regions never falls below 22.1°C. Lowlands in the west and south of the State fall under the tropical monsoon climate. The normal annual rainfall in the region is around 158.9 inches. The region

received most of the rains in summer. Annual rainfall data of Kayin State in 2008-2010 is shown in table 2.

3.2. Political

It was documented that four Karen parties namely Phaon-Sawaw Democratic Party (PSDP), the Kayin People's Party (KPP), the Kayin State Democracy and Development Party (KSDDP), and the Union Kayin League (UKL) were originally formed in the Kayin State. The UKL was then dissolved. Five political parties; which are three political parties (i.e. PSDP, KPP, KSDDP), USDP and All Mon Regional Development Party (AMRDP), were attempted the 2010 Elections. Among them, the USDP won highest number (i.e. 13 seats) followed by PSDP (i.e. 9 seats), KPP (4 seats) and KSDDP (2 seats) while the AMRDP won 3 seats with a further seat going to an independent, the regime's own party.

3.3. Demographic

The Kayin State is composed of four districts (i.e. Hpa-an, Hpapon, Kawkareik, and Myawaddy) under which there are seven townships (i.e. Hpa-an, Hlaing Bwe Thandaunggyi, Hpapon, Kawkareik, Kyarinseikkyi and Myawaddy). Nine Sub-townships (i.e. four under Thandaunggyi, one under Hpapon, two under Kyarinseikkyi and two under Myawaddy) and a total of 2063 villages are listed in the profile of Kayin State. Hpa-an District has highest number of villages (i.e. 1159 of 2063) and Myawaddy District has the lowest number since there are only 54 villages. The total area of Kayin State is approximately 30,383 km² (11,731 square miles). It has 222,013 households in total with the population of 1,748,447 people (865,564 males and 882,883 females). The population density is 58 per square kilometer or 149 persons per square mile.

Table 3. Population of Kayin State

Sr.	District /Township / Sub-Township	Quar.	VT	Village	No. of Houses	HHs	Male	Female	Total
1	Hpa-an District	41	222	1159	118391	125746	476855	493267	970122
	Hpa-an Township	9	91	474	63702	68366	251075	258967	510042
	Hlaing Bwe Township	4	36	151	24076	25359	110099	115232	225331
	Thandaunggyi Township	9	13	66	4078	4274	14492	12997	27489
	Paing kyun sub-T/S	5	27	153	12005	12092	48152	50773	98925
	Bawgali sub-T/S	4	15	80	2365	2355	12058	11714	23772
	Late thor sub-T/S	6	31	176	7905	7941	27226	28569	55795
	Shan Ywarthit sub-T/S	4	9	59	4260	5359	13753	15015	28768
2	Hpapon District	8	33	305	14219	14478	79543	77552	157095
	Hpapon Township	4	23	198	8285	8341	58717	56014	114731
	Kamamaung sub-T/S	4	10	107	5934	6137	20826	21538	42364
3	Kawkareik District	27	104	545	64901	69045	279407	281787	561194
	Kawkareik Township	11	53	259	30642	34152	145991	148222	294213
	Kyarinseikkyi Township	6	20	116	11971	12042	64646	59968	124614
	Kyaik done sub-T/S	6	21	115	13671	13696	42165	46105	88270
	Hpayar thonesu sub-T/S	4	10	55	8617	9155	26605	27492	54097
4	Myawaddy District	8	15	54	12428	12744	29759	30277	60036
	Myawaddy Township	5	11	35	10727	11046	26608	26994	53602
	Sukali sub T/S	1	3	9	537	523	1397	1515	2912
	Wawlaymyein sub-T/S	2	1	10	1164	1175	1754	1768	3522
	TOTAL	84	374	2063	209939	222013	865564	882883	1,748,447

Source: Agriculture Department November 2012

3.4. Culture

3.4.1. Ethnic Groups

According to Regional Immigration Department, the major ethnic group is Kayin, whose constituent accounts for 60.2% in this region. Mon and Bamar (12.73% and 11.97% respectively) are the second largest while there are some ethnic minorities living in Kayin State are Pa-O (5.8%), Shan (3.3%), Rakhine (0.33%), Kayah (0.24%), Kachin (0.13%) and other (4.88%).

3.4.2. Religion

Religions of people in Kayin State are quite varied but the majority of people are Buddhist and Christian while only a few are Hindu, Animism and Islam. Two sub-groups of Kayin ethnic namely Poe Kayin and Skall Kayin living in this region have two different religions; i.e. Poe Kayin people are mostly Buddhists and Skall Kayin people are Christians. The majority living in Hpa-an, Kawkareik, Hlaing Bwe, and Kyarinseiki are mostly Buddhists while people living in Thandaunggyi and Hpapon are mostly Christians. They also use different literatures and languages however have more or less similar culture and tradition. In terms of livelihoods, Poe Kayins are living in flat lands and largely depend on rice farming and gardening while Skall Kayin living in upland areas usually practice slash and burn agriculture (i.e. *taungya*).

Table 4. Religion in Kayin State

Sr.	District	Buddhist	Christian	Hindu	Muslim	Animism	Other	Total
1	Hpa-an	799230	119227	12915	33907	48	0	965327
2	Phapon	112764	35946	365	6861	0	382	156318
3	Kawtkayeik	495567	35086	3838	20575	3259	0	558325
4	Myawaddy	54224	3209	215	1839	233	0	59720
	Total	1461785	193468	17333	63182	3540	382	1739690

Source : SPDC, Facts of Kayin State

According to the data from General Administration Department, 84% of the total population in this region is Buddhists followed by Christians (11%), Muslim (4%) and Hindu (1%) while the population with Animism and other religions are 0.203% is 0.022% respectively (Table 4).

3.5. Natural Resources

3.5.1. Rivers and Streams

The rivers and creeks in Kayin State are flowing from south to north due to the location of mountains. The main rivers in the state are Thanlwin (Salween River), Thaungyin (Moei River), Gyaing and Attaran. Among the rivers, Thanlwin is the longest free-flowing river in the South-East Asia, which stretches over 2,800 kilometers from its source to the Andaman Sea. In 2003, UNESCO World Heritage Committee proclaimed this region as a "World Heritage Site" where the area in China through the Salween flows.

Within the State, many streams and creeks are available as other water sources (i.e. irrigation water and domestic use) and the listed are Done Tha Mi stream, Kyun Phe' stream, Kha Yar Ah Twin, Ah Pyin streams are located in Hpa-an Township whilst many streams (i.e. Chaung Na Kwa stream, Win Pha na stream and Nat Chaung, in Kyarinseiki, Na Bu stream, Kyun Do stream and Kyat khat stream in Kawkareik, Hlaingbwe stream and Yay Boat Dam in Hlaingbwe, Yawn Sa Lin stream and Me Pa le'

stream in Myawaddy, Billin river, Me' Paing stream in Hpapon and Ka thit stream, Me Tin taing stream and Myit Ngan stream are in Thandaungyi).

3.5.2. Forest Resources

Kayin State is also rich of natural resources with different forest types, which contribute basic needs of local residents (i.e. food, wood for shelter, fuel wood for energy and other valuable medicinal plants). Different types of natural forests, which are Evergreen Forest, Mixed Deciduous Forest, Indaing Forest, Hill Forest and Bamboo Forest exist in Kayin State, in which *Tectona grandis* (teak), *Xylia dolabriformis* (Iron wood), *Pterocarpus macrocarpus* (padauk) and many others valuable hardwood species are available. Moreover, many other commercially and ecologically important species are found in the wildlife parks such as orchids, medicinal shrubs, herbs and climbers. There are also many other fauna species such as wild pig, monkey, barking deer, wild cat, etc. Furthermore, valuable mineral resources such as gold and others are also found in the State.

Regional Forest Department manages these natural forests including Reserved Forests, Protected Public Forests and Nature Conservation Areas. At the same time, FD has been establishing a huge area of forest plantations annually. The forest plantations established are (i) private Teak plantation, (ii) private hardwood plantation, (iii) private rubber plantation and (iv) community forests (table 5). In addition, in coordination with other governmental departments and communities, FD conducted many other public trees planting activities.

Despite putting much effort on conservation, most of the forests are being severely degraded due to human induced activities such as extensive timber extractions and intensive shifting cultivation practices over several years. FD could not fully manage and properly operate its functional activities in the region due to some constraints and limitations such as insufficient numbers of staff concerned especially for field level operation of forestry activities and inaccessibility to remote area, etc. In some areas of Kayin State, the local communities have established community forests in line with community forestry instructions (1995) through which they are able to conserve their surrounding forests to ensure sustainability of their livelihoods.

Table 5. Forest Areas in Kayin State (Acres)

Sr.	Township	Reserve forest	Protected Public Forest	Natural Forest	Total (acre)
1	Hpa-an	36605.33	32,516	0	69,121.33
2	Hlaingbwe	91,980	84,681	0	176,661
3	Thandaunggyi	55,104.87	259,081.6	0	314,186.47
4	Phapon	151,761	331,025	39680	522,466
5	Kawtkayeik	31,647	154,611	Na	186,258
6	Kyarinseikkyi	363,151	117,372	34210	514,763
7	Myawaddy	388,226	137,357	na	525,583
	Total	1,118,475.2	1,116,643.6	73,920	2,309,038.80

Source: Forest Department, Kayin State, June 2012. Note: Data are available only for 7 townships.

Table 6. Community Forest Establishment in Kayin State

Sr.	Established year	Location	Area (acre)
1	2001-2002	Whay Shan village, PPF, Myawaddy Township	250
2	2002-2003	Kyauktalone village, unclassified forest, Hpa-an township	234.55
3	2003-2004	Kyonekhanat village, unclassified forest, Hpa-an township	148.50
4	2004-2005	Minletpan, unclassified forest, Myawaddy township	470
5	2008-2009	Compartment No. (4), Thandaung Reserved forest	19.45
6	2011-2012	Hlaing Bwe Protected Public forest, Hlaing Bwe township	100
	Total		1222.50

Source: Forest Department, Kayin State, June 2012

3.5.3. Agriculture

Most of local farmers grow paddy in the lowland areas for their living. Other crops such as variety of beans, sugarcane, groundnut, maize, corn, sesame, sunflower, peas and rubber are commonly grown by the lowland farmers (see the table 7). In upland area of Kayin State especially in Thandaunggyi and Bawgali areas, local farmers are practicing shifting cultivation mainly to grow upland paddy. Although, farmers still use the traditional method (i.e. ploughing by cattle), farm mechanization is gradually being developed especially in the lowland paddy fields.

As paddy is commonly grown, approximately 57% of the total cultivated acres are paddy fields, in which rain-fed paddy covered 81% of paddy lands where summer paddy covered 19% of the total. In Kayin State, farmers have limited access to irrigation for the second crops though water resources are chiefly available within the area. The only one dam (i.e. Yay Boat Dam located in Hlaingbwe Township) supply water for 3000 acres of summer paddy and winter crops including groundnut, sesame, maize and corns are grown in some of the low land areas where seasonal weirs and river water pumping system are available and where the lands available after the floods occurred in rainy season.

Table 7. Cultivated Area of agricultural Crops (acres)

Sr.	District/Township	Cultivated Acres of Different Crops					
		Paddy	Edible Oil	Rubber	Pulse & Beans	Spices	Sugarcane
	Hpa-ann District	398411	48461	68656	61166	44679	13949
1	Hpa-an	189302	24934	37352	52839	3205	crop
2	Hlaing Bwe	163116	16505	21204	6600	2109	4917
3	Phapon	31132	2753	4845	1350	4658	1790
4	Thandaunggyi	31045	2618	5255	382	34697	0
	Kaw Kayaik District	239935	39110	117690	21156	7928	3091
5	Kaw Kayaik	149277	11987	34004	17607	3725	1301
6	Kyarinseikkyi	90658	17283	83686	3549	4203	1790
	Myawaddy District	13997	1735	3401	41887	363	688
7	Myawaddy	13997	1735	3401	42183	363	688
	Total	652,343	89,306	189,747	124,209	52,970	17,728

Source: Agriculture Department, 2011-2012. Note: Data are available only for 7 townships.

Apart from paddy, rubber becomes a demanding crop due to It is high profit margin, market guarantee and its easiness to handling and storage. In addition, it is easily adaptable to the existing

soils and weather of the State as well as a kind of business with less intensive labor but only with seasonal labors.

Table 8. Status of Private Rubber plantations in Kayin State

Sr	Township	Target area (acre)	Completed (acre) till June 2012
1	Hpa-an	6381.35	3716.67
2	Hlaing Bwe	6936.416	5662.416
3	Myawaddy	4517.7	2086.2
4	Kawtkayeik	797.7	797.7
	Total	18,632.466	12,262.286

Source: Forest Department, Kayin State, June 2012. Note: Data are available only for 4 townships.

3.5.4. Minerals

Minerals such as iron, lead, copper, tin, coal and antimony are produced in the State. Nonetheless, there is no mass production yet due to current political situation within the State. Some geologists announced that there are big potential of gold production in Kayin State. Currently, some private companies were already permitted for mining in Kayin State (i.e. 12 companies for gold mines and 10 private companies for metal and iron mines).

3.6. Land Use

There are six main categories of land use in Kayin State as described in table 9. Among them, cultivated land for growing paddy, beans and rubber is a major land use type for livelihoods of local communities while orchard for growing perennial fruit trees is also a common land use in this area within the State. In terms of management, the reserved forest and protected public forests are under the management of Forest Department and waste lands and uncultivable lands are managed by the Settlement and Land Record Department (SLRD) in accordance with government' existing policy. Currently, line departments and NGOs working in this area are trying to change perceptions of local farmers from traditional farming practice to good agricultural practice (GAP) with modern agricultural techniques to increase yields of the cultivated crops in order to ensure sustainability of lands and livelihoods of the local farmers.

Shifting cultivation is mostly practiced by people in in Thandaunggyi, where the upland area of Kayin State and local farmers grow *Amomum subulatum* (Phalar) together with other shade bearing trees such as Danyin and other fruit trees as their major cash crops. Now, rubber plantations were established in lowland area and the ridges with a gentle slope to receive good income.

Table 9. Different Land Use Types in Kayin State

Sr No	District./ Township	cultivated land	Fallow land	Cultivable waste land	Reserved Forests	Other forest area	Other Land	Total
1	Hpa-an Tsp	272861	5733	58612	69124	221390	89137	716857
2	Hlaing Bwe Tsp	199318	1416	1576	176659	206185	484762	1069916
3	Hapon Tsp	39893	247	21936	482789	1039185	77117	1661167
4	Thandaunggyi	56057	0	0	315665	297322	235206	904250
5	Kawkareik Tsp	200710	2304	15809	153075	24891	43969	440758
6	Kyarinseikyi	189060	7989	19215	513710	1192106	17767	1939847
7	Myawady Tsp	33416	0	0	528767	207336	5429	774948
	Total	991315	17689	117148	2239789	3188415	953387	7507743

Source: Agriculture Department, Kayin State. Note: Data are available only for 7 townships.

3.7. Land Tenure System

Only low land are registered officially at SLRD but other land uses (i.e. shifting cultivation, orchards, farms in upland area) are not necessary to register yet. On the other hand, their customary land rights recognize people's land ownership especially in the ethnic groups. The majority of farmers grow rice, pulses and rubber on their own lands particularly in Hpa-an area. In other parts of Kayin State, a shared land use system has been practiced between land owners and landless farmers. Tenant farmers have to pay certain portions of harvested crops to the land owners. The payment system is either a seasonal crop basis or a yearly basis depending on the agreement made between them. Most of the lands located in the areas where arm conflicts are happening, are not cultivated for over a couple of decades.

3.7. Accessibility

There have only road and water ways are accessible for public transportation. Railways and airline are still not available in Kayin State yet. The distance from the capital city Hpa-an to Yangon is approximately 180 miles by road. It has to cross the Thanlwin Bridge on the way to Yangon. Myawaddy Township is the furthest town from Hpa-an as located in south-eastern part. It takes 96 miles from Hpa-an and the transport mode is only by road. According to road conditions and security, Hpa-an -Myawaddy road is operated in alternate days (i.e. one day to travel up and another day to travel down). Kawkareik Town is located between Hpa-an and Myawaddy highway road and 56 miles from Hpa-an. Hlaingbwe located in the north-east is 24 miles from Hpa-an. Myaingyungu village, which was the repatriation centre of DKBA, is located in the northern part of Hpa-an and 36 miles away.

Local communities mostly rely on motorcycles (i.e. owned or taxi) to travel from one village to another. However, it is still difficult to assess village roads since most of them are earthen footpaths with bad conditions in the rainy season. During discussion with a leader of Pa-O ethnic group, he mentioned that the village roads are even getting worse. The villagers are facing difficulties, especially school children, old people and sick people to schooling and access to health care services. The local residents are expecting that they would have better livelihoods with easy access to town and urban areas if the conflict is over.

People can have access to other cities such as Mawlamyine, Bago, Yangon, and Naypyitaw through daily highway expresses. For instance, it takes about one hour to get the nearest town, which is

Malawmyaing, city of Mon State, In terms of distances, from Mawlamyaing to Hpa-an is only 31.6 miles by road while Mawlamyaing to Myawaddy, Kyarinseikyi and Myainggyi Ngu is 111.5 miles, 73 miles and 70.35 miles respectively. There are at least 17 line buses in Hpa-an, with which people can go to Yangon, Mawlamyaing, Thaton, Bilin, Kyaikhto, Waw, Bago, Yangon, Naypyitaw, Mandalay and Monywa. In addition, the trucks are available for the residents to transports their local produces to many other places.

Table 10. Transportation Facility

Sr.	Name of Express	Trip (From –To)	Frequency
1	Shwe Phar Si	Hpa-an to Yangon	Daily
2	Rkartha	Hpa-an to Yangon, Mandalay,	Daily
3	Tawwin	Hpa-an to Naypyitaw	Daily
4	Manshweyotaw	Hpa-an to Mandalay	Daily
5	Shwechinthay	Hpa-an to Yangon	Daily
6	Shwesinsekyar	Hpa-an to Yangon	Daily
7	Shwemyanmar	Hpa-an to Yangon	Daily
8	Shwenadi	Hpa-an to Yangon	Daily
9	Pwinthisayadanar	Hpa-an to Yangon	Daily
10	Tharmanya	Myawadi -Hpa-an - Yangon	Daily
11	Aungsithi	Hpa-an to Yangon	Daily
12	Shweyadanar	Hpa-an to Yangon	Daily
13	Mibagon	Hpa-an to Yangon	Daily
14	Aunghtoosan	Hpa-an to Yangon	Daily
15	Shwenataung	Hpa-an to Yangon	Daily
16	Yarzarmin	Kawtkayeik to Yangon	Daily
17	Aswetaw	Kawtkayeik to Yangon	Daily

Source: Shwechinthay Express , Bus ticket sale, Hpa-an , December 2, 2012

4. Current Status

4.1. Peace, Reconciliation and Resettlement

There are a number of armed groups residing in Kayin State (table 11). Under the reconciliation and resettlement program, KNU opened it liaison offices in Hpa-an on 29September 2012 and also in Myawaddy and Phayar Thonesu Townships this year according to the agreement with Kayin State Government.

Table 11. List of Armed Groups in Kayin State

Organization	Region	Effective date	Notes
(DKBA) Democratic Karen Buddhist Army	Karen state	1995	
Karen Peace Force (KPF)	Karen state	1997	Former 16th Battalion of the Karen National Union
KNU Special Region Group, Taungoo (KNU)	Bago Division	1997	
Kayan National Liberation Army (KNLA)	Karen State	2007	Former 7th Battalion of the Karen National Union
Democratic Karen Buddhist Amy (DKBA) 3 rd Brigade	Karen State	3 Nov 2011	Fighting resumed on 19 February 2012
Kaloh Htoo Baw armed group	Karen State	5 Nov 2011	Former DKBA
Karen National Union (KNU)	Karen state	7 Feb 2012	

4.1.1. Peace Process

The civil war between the Burmese government and the Kayin people was the longest of Burma's myriad internal conflicts. But it has been less intractable since the KNU Executive and the Burmese Military Government (i.e. Tatmadaw) has signed a ceasefire on January 12th 2012. On 7 February 2012, Kayin State Peace-making Group and KNU/KNLA Peace Council signed an agreement.

The first meeting held on 4th April 2012 at the Zwegabin Hotel of Hpa-an was led by Naw Zipporah Sein, Saw Htoo Htoo Lay, the Secretary of the Military Affairs Committee, and General Mutu Say Poe, the General Commanding Officer. From the Government side, the representatives were Railways Minister U Aung Min, Immigration and Population Minister U Khin Yi, and General Tin Maung Win of south-eastern Command. Liaison offices opened on 15 May 2012 in Phayar Thonesu, and in Myawaddy on 18 August 2012 whilst, a central level liaison office of Kayin State was temporarily open on 29 September 2012 in Hpa-an.

On 4th September 2012, negotiating teams from both the Government and Karen National Union (KNU) signed a draft code of conduct for armed forces from both sides. After opening the unauthorized liaison office in Hpa-an, Commander-in-Chief General Mutu Say Poe and two peace negotiators, David Htaw and Roger Khin were dismissed. Soon after the dismissal, the KNU appointed a new acting commander-in-chief, Brig-Gen Baw Kyaw Heh, the commander of Brigade 5 of the KNU's military wing, the Karen National Liberation Army (KNLA).

According to the 2005 World Refugee Survey, 691,800 have fled to neighboring countries, where they live as refugees. Millions more are thought to have fled Myanmar but have not been able to be registered as refugees. Over 145,000 refugees from Myanmar are living in Thai camps near the border which were first established in 1984. The total of both unregistered and registered Myanmar nationals living in Thailand might well exceed two millions. Armed conflict between the government and three armed groups has induced high rates of displacement in central Kayin State's border areas with Thailand. In addition, there are also more displace cases such as 27,000 in November 2010, 31,000 in March 2011 and a further 28,000 internal displacement by the Kyauk Na Ga Dam project.

Repatriation and resettlement process for the refugees and returnees have discussed since the peace talk. No official announcement was published yet but it was told by the local staff that some of the areas for the returnees have already been nominated and now under the planning stage from different sectors for supporting them. The following are some of the expected areas, to be settled down.

- Hlaing Bwe Township,
- Ka Mawt Le, Shan Ywar Thit Sub-township
- Kwan Be village, Hlaing Bwe Township
- Taung Kyar Inn, Kawkareik Township
- Phar Kyart, Kyainseikgyi Township
- Nown Naing, Kyainseikgyi Township,
- Waw Lay Myaing, Myawaddy Township
- Sukali Sub-township, Myawaddy Township
- Bawgali Thandaunggyi Township ,

4.2. Gender Issues

No distinct gender inequality has been found in Kayin society and Kayin culture in history. All family members have equal rights in marriage and succession but the youngest in the family is a bit more favored in some cases.

Due to the prolong conflicts within the area, women's gender roles have been slightly changed by taking more productive roles (i.e. men have to engage in the battle fields). Women have also more opportunity to work in Thailand such as factory workers, baby sitting, entertainment etc. Though women's role is changed as a bread winner in many households, they are at high risk in terms of trafficking and of sexually transmission diseases mainly HIV/AIDS. Nowadays, it is easier to go to Thailand through a legal process and the registration fee is only 500 baht per year. Average daily wage in Thailand is around 300 baht (i.e. about 10,000 kyat) but the workers need to inform local government every three months to remain their status. Since Thailand demand for physical labor, the migrant laborers do not need higher education. Income received is also much higher for the workers in compare with income received in Myanmar so that they can provide more support to their families.

4.3. Livelihoods

Majority of the local community people traditionally rely on agriculture, livestock breeding, collecting forest products but working abroad has become most popular in Kayin State.

4.3.1. Agriculture

Insufficient rain water for paddy fields as well as occurrence of floods in some areas during monsoon had dramatically decreased the targeted yields of paddy in the State. In addition, poor water drainage due to lack of regular maintenances and low water retaining capacity in the land with lateritic soil type, these areas are quite limited to practice double cropping system (i.e. paddy-pulses paddy-paddy). Existence of acid soil with low pH level is a common phenomenon since the use of organic manure has been declining as a result of mechanization (i.e. response to labor shortage) and also improper use of chemical fertilizers (i.e. farmers applied urea only). However, some farmers afford the costs of chemical fertilizers only for the nurseries. Soil fertility also become poorer due to poor soil management except some lands are fallowed as farmers cannot use sufficient inputs including chemical and organic fertilizers.

Furthermore, farmers have lack of access to quality seeds and knowledge on improved cultivation techniques. Some seeds of crop varieties imported from Thailand are easily available in the local markets but farmers have lack of knowledge and information on purity and germination rate of seeds and tolerant levels of these seeds on pests and diseases. Seeds were illegally traded through the border. However, local government is still unaware of these issues although Seed Law and Pesticide Law were already promulgated in Myanmar. During these days, the acreage of rubber plantation is significantly increased in the area due to interests of local individual farmers and external private agri-business companies. However, there are still some issues; i.e. insufficient skilled workers and advanced processing techniques, to produce quality products for the regional and international market.

The local farmers have some considerable issues such as higher labor costs due to decreasing labor force from within or outside household members, use of limited finance to use the inputs and lack of

advanced technology and information, which decreased yields of crops and provided small marginal profits to the farmers. As a result, the agriculture sector is shrinking with a large area of fallow lands paddy cultivation has been gradually decreased.

Shifting cultivation is still widely practiced in some upland areas of Kayin State especially in Thandaunggyi. As far as environmental issues are concerned, it will also make local livelihoods more difficult in the future. Inaccessibility is also a common barrier to upgrade the local agriculture sector as it is difficult to assess remote areas (from town to villages as well as village to village) without having transportation facility. Besides, insufficient skilled workers and qualified technicians within the area also largely constrained in developing agriculture sector. Consequently, local people in Kayin State have poor or lack of interest and awareness on how they can improve their livelihoods. The only alternative is young people become migrant workers in the neighboring countries. In fact, they are the key labor forces for the local agriculture sector.

4.3.2. Livestock

In Kayin State, most of rural families raise the livestock for meat, egg and also for the services, which they used for some agricultural activities as well as for their social and cultural function including weddings, funerals and some religious activities. It was reported that the majority raises local pigs due to chiefly available of the pig feeds, especially wild taro leaf. However, as it is local inbred, the productivity, in terms of weight, is quite low (i.e. only 50-60 viss at the age of 18 months). Chicken are also mostly raised by the rural communities. Pigs and chickens are very easy to be disposed at the local market in case of family emergency. The rural farmers still lack knowledge and information on commercial production of pigs and chicken.

Both of small and medium scales poultry farms for eggs and meat are commonly found in town areas of different townships but there are only a few number of commercial livestock farms initiated the local government within the State. The success of livestock breeding in this area will largely depend on marketing opportunities through proper channels and adequate resource persons particularly availability of skill workers. Major domestic animals listed are pig, chicken, ducks, goat, cow, buffalo, etc. (Table 12).

Table 12. Livestock Breeding in Kayin State

Sr.	Township	Number of animals						
		Buffalo	Cow	Goat	Pig	Chicken	Duck	Goose
1	Hpa-an	16744	122950	17048	108125	146456	13250	14663
2	Hlaing Bwe	21341	64521	21491	63038	761885	42367	6178
3	Thandaunggyi	5648	6224	985	21945	247412	4217	1861
4	Phapon	4752	8569	1883	9078	157773	10436	116
5	Kawtkayeik	10986	66014	10120	39723	490150	39015	6411
6	Kyarinseikkyi	20838	55206	10294	37771	400667	39097	5630
7	Myawaddy	2639	9405	4009	14041	145167	14768	3656

Source: Anonymous. Note: Data are available only for 7 townships.

In collaboration with JICA, Fishery Department has conducted small-scale fish farming in 6 villages of Hpa-an Township. Similarly, with financial support of Thai International Cooperation Association (TICA), farmers in Kyauk Lone Gyi Livestock zone in Myawady were trained on fattening cows for two

times under Development of Livestock Village scheme of Thai-Myanmar Border Project. Myanmar livestock breeders also took a study tour on livestock activities in Thailand.

4.3.3. Casual Labour

There are only a few job opportunities for the casual laborers and smallholder farmers especially in the villages. A local norm of daily wage is around 2000 -3000 Kyat based on the types of work and accordingly the workload needed. Collection of rubber gums from rubber plantation is available but with the seasonal basis. The workers and farm owners in some areas have a shared quota system with agreed ratios upon daily production, for example, 60 % for the owner and 40 % for the laborers.

Due to the prolonged arm conflicts and high outmigration, some paddy lands were abandoned and thus job opportunities for the casual laborers is very scarce within their native, which resulted in shrinking agriculture sector in Kayin State. Other non-farm job opportunities are also very low for the local people in Kayin State.

4.3.4. Outmigration

Outmigration is very common for the people living in Kayin State. Young men from rural areas often migrate to other countries for seeking jobs. Migration has been one of popular works especially for the young in Kayin State over a couple of decades and it is still common for them now (see Table 13. the status of migration to Thailand). Some people have migrated to other countries, mainly to Malaysia and Singapore. These migrations cause serious shortage of workforce and reduce production of local economy in Kayin State.

Table 13. Status of Migration to Thailand

Sr.	Township	No. of Migrated workers
1	Myawady	22,000
2	Kyarinseikiyi	17,000
3	Hlaing Bwe	1386
4	Phapon	2000
5	Kawtkayeik	3000
6	Hpa-an	129,000
	Total	174386

Source: Anonymous. Note: Data are available only for border towns.

4.4. Education

Data of education infrastructure in seven townships of Kayin State are available from one reliable source (table 14) but the source requested not to be mentioned his name and department. According to statistics, a total of 233,363 students enrolled in 1,297 schools (i.e. 40 high schools, 78 middle schools and 1,179 primary schools) in Kayin for which a total of 7315 teachers had been recruited. In terms of student ratios attending in all level of education, students attending in primary schools is the highest (i.e. 69%), those enrolled in the middle schools is moderate (i.e. 26%) while those in the high schools is the least (i.e. 5%). In case of number of teaching staff recruited, the average student: teacher (S:T) ratios for primary, middle and high schools are 37:1, 40:1 and 20:1 respectively (table 15) whilst the average number of teachers recruited for primary, middle and high schools were 70.5%, 26.0% and 8.5%. By township, the Student - Teacher Ratio in Myawaddy

Township is the highest (i.e. 49:1), that in Thandaunggyi is the lowest (27:1) while those in the remaining townships are more or less similar ratio but with a smaller range (i.e. 32:1-35:1).

Table 14. Education Infrastructure in Kayin State

Sr.	Township	No. of Schools			Total
		High	Middle	Primary	
1	Hpa-an	11	28	385	424
2	Hlaing Bwe	6	13	191	210
3	Phapon	2	3	60	65
4	Thandaunggyi	6	9	184	199
5	Kawtkayeik	6	15	188	209
6	Kyainseikyik	5	7	137	149
7	Myawaddy	4	3	34	41
	Total	40	78	1179	1297

Source: Anonymous. Note: Data are available only for 7 townships.

Table15. Ratio of Students and Teachers in Kayin State

Sr.	Township	No. of Students				No. of Teachers				S:T Ratio by T/S
		High	Middle	primary	Total	High	Middle	Primary	Total	
1	Hpa-an	5191	21838	51203	78232	251	572	1932	2755	28:1
2	Hlaing Bwe	1355	8776	28730	38861	88	221	809	1118	35:1
3	Phapon	485	2190	6409	9084	23	53	202	278	33:1
4	Thandaunggyi	1065	4545	11328	16938	58	131	436	625	27:1
5	Kawtkayeik	1994	10929	27097	40020	91	280	831	1202	33:1
6	Kyainseikyee	1180	6709	19573	27462	68	147	655	870	32:1
7	Myawadi	1161	5858	15747	22766	45	120	302	467	49:1
	Total	12431	60845	160087	233363	624	1524	5167	7315	
		5.0%	26%	69.0%		8.5%	21%	70.5%		
	S:T Ratio	20:1	40:1	37:1						
	Average S:T Ratio				32:1					

Source: Anonymous. Note: Data are available only for 7 townships.

Table18. School Enrollment in Kayin State

Status of Education	Male	Female	Total (Kayin)	National
Net primary attendance rate	93	96	94.5	90.2
Net primary school completion rate*			49.2	54.2
Dropout rate after primary education?			45.3	36
Secondary school net attendance ratio	56.2	62.1	59.3	58.3
Secondary school aged children attending primary school	20.3	17.8	19	

Source: Anonymous

On the other hand, enrollment rate of children under five in kindergarten schools is extremely high (i.e. 99.07%). Similarly, according to available statistics, the literacy rates of the adult people from

2009 to 2011 were also very high (i.e. 97.6% in 2009, 97.63 % in 2010 and 97.69% in 2011) (see table 17).

Table 17. Literacy Rate for the Adult People in Kayin State (2010-2011)

Sr.	Township	No. of Illiterate (2009)	No. of Literate (2010)	% of Literate
1	Hpa-an	9792	9612	98.16
2	Hlaing Bwe	6960	6776	97.36
3	Phapon	1102	1077	97.73
4	Thandaunggyi	1014	988	97.44
5	Kawtkayeik	5562	5409	97.25
6	Kyainseikyee	2202	2155	97.87
7	Myawadi	1294	1264	97.68
	Total average	27926	27281	97.69

Source: Anonymous. Note: Data are available only for 7 townships.

4.5. Health

Malaria, tuberculosis (TB), diarrhea, dysentery, ARI, abortion and psychosis are the common diseases occurred in Kayin State. Home drugs are scarce and expensive in the township's remote villages. The underlying causes of disease incidences are due to weather, personal Hygiene and sanitation. Health infrastructure such as sub-rural health center is needed in most of villages in Kayin State. Mortality rate of people due to incidence of malaria disease is the highest in Kayin State and Myawaddy is the worst among seven townships. The health status of people can be generally measured in terms of birth rate and death rate as well as mortality rates of children under the ages of one and five. In addition, mortality rate of mothers during and after giving birth and abortion rate of women are also a kind of proxy indicator in measuring health status.

Death and birth crude rate between rural and urban communities are quite different. Poor health facilities and insufficient numbers of qualified staff largely impacted the health of the rural population. Awareness on health and personal hygiene among the rural families is also still poor.

Table 18. Mortality Rates of People in Kayin State

Sr.		
1	Crude Birth Rate (for1000 persons)	16.2%
2	Crude Death Rate (for 1000 persons)	3.9%
3	Mortality Rate of Children under one year(Live birth 1000)	12.3%
4	Mortality Rate of Children under five year (Live birth 1000)	16.4%
5	Mortality Rate of Mother (Live birth 1000)	1.9%
6	Abortion Rate of Women (Live + death birth)	6.3%

4.5.1. Morbidity of Communicable Diseases

Due to remoteness, some rural villages in Kayin State have poor or lack of access to awareness and knowledge of health and consequently frequencies and morbidity rates of some communicable diseases particularly diarrhea, dysentery and malaria diseases were high every year. Despite the

higher rate of disease incidences, they have uneasy access to sufficient health care services and qualified health staff to receive a better health care.

According to health information (2011) from MIMU, the average rate of malaria cases at out-patient department (OPD) in 7 townships of Kayin State was 9.68% from 2009 to 2011. The highest number of cases (i.e. 19.4%) was found in Thandaung within this period. In addition, the average fatality rate due to incidence of malaria in these townships was 1.54% while the highest fatality rate was occurred in Kawtkayeik (i.e.1.7%). An average new case detection rate of TB disease was 88.16% in these townships but the highest detection rate (i.e. 212.16%) was found in Myawaddy Township during this period.

Table 19. Morbidity Rates of Common Disease in Kayin State

Township	Morbidity of Diseases (Per 100,000 population)					
	Malaria	ARI Children < 5	Diarrhea	Dysentery	TB	Snake Bite
	2011	2011	2011	2011	2011	2011
Hpa-An	563.60	2532.80	500.70	159.70	65.00	8.00
Hlaingbwe	1352.50	5007.80	1110.20	278.90	63.70	2.10
Hpapon	3,636.30	2,087.60	1,555.50	453.10	63.10	2.30
Thandaunggyi	3775.20	7225.90	1522.30	372.80	52.30	6.40
Myawaddy	3526.00	14576.90	1273.30	321.80	180.80	
Kawkareik	704.20	997.90	393.70	92.70	37.00	18.80
KyainSeikgyi	2298.70	7716.80	1204.70	375.60	31.70	2.10
Kayin	1472.86	4980.84	840.17	230.80	61.10	7.54

Source: Common Disease Information DHP 2011, MIMU. Note: Data are available only for 7 townships.

Table 20. Incidence of major communicable diseases in Kayin State

Township	% Malaria cases (OPD)			% Malaria cases Fatality Rate			% Tuberculosis New case Detection rate		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Hpa-An	6.30	5.90	5.50	1.30			142.40	108.70	61.90
Hlaingbwe	10.10	8.80	8.20	1.00	0.90	0.80	52.80	78.10	60.30
Hpapon	18.10	21.90	17.50	0.80	2.90	1.40	19.90	134.20	38.60
Thandaunggyi	19.80	23.90	14.50	1.00	1.60		20.00	41.50	21.40
Myawaddy	11.80	15.40	13.40	0.80	2.70	1.70	254.60	230.20	151.70
Kawkareik	7.40	5.50	7.30	1.10	2.90	1.10	89.10	84.00	35.20
Kyarinseikkyi	7.80	6.70	8.00	1.40	1.30	2.60	39.30	39.30	30.20
Total	9.78	10.21	9.05	1.04	2.09	1.51	95.67	92.85	75.98

Source: Health Impact Indicator, DHP, 2011, MIMU. Note: Data are available only for 7 townships.

4.5.2. Nutrition

In accord with the WHO growth standard, the nutritional status of the children under five in Kayin state was measured using indicators against the number of malnourished children. It was recorded 15.1% of the children is moderately underweight while 3.2% of children are severely underweight in Kayin State. In terms of height measured, 29% of the children are moderately stunted and 7.4% of the children are severely stunted. 3.8% are moderately wasted and the other hand 0.8 percent of the children are severely wasted. If compare with the national level, the nutritional status of the children from the Kayin State, are more better and it can consider as well nourished.

According to MIMU health data (2009-2011), malnutrition rate for the children less than one year and three years with reference to underweight in all 7 townships of Kayin State from 2009 to 2011 had been described in the following table. Average malnutrition rate for the children under one year within this three year is 4.3% and 5% for the children under 3 year within the same period. The least malnutrition rate 3.2% is in Hpa-an and the maximum rate 6.1% in Phapon. Average severe malnutrition rate for the children under three year within this period is 0.56%. The least severe malnutrition rate 0.26% is in Hpa-an and the maximum severe malnutrition rate 0.73% is in Phapon.

Table 19. Nutrition Status of Children in Kayin State

Township	% of Moderately Malnourished Children under One year			% of Moderately Malnourished Children under Three years			% of Severely Malnourished Children under Three years		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Hpa-An	2.2	3.7	3.8	7.0	6.3	5.7	0.2	0.2	0.4
Hlaingbwe	5.7	3.2	3.9	6.7	3.3	3.5	0.5	0.4	0.4
Hpapon	9.8	4.0	4.6	12.0	3.7	2.7	0.9	0.7	0.6
Thandaunggyi	4.7	6.1	5.0	5.5	6.8	4.6	0.4	1.4	0.7
Myawaddy	8.3	4.9	4.9	9.3	4.3	4.5	0.7	1.7	1.3
Kawkareik	3.8	3.7	3.5	4.9	4.3	3.6	0.6	0.4	0.3
KyarinSeikgyi	5.4	6.0	5.3	5.8	5.1	4.2	0.4	1.1	1.0
Total Average	4.6	4.3	4.2	5.5	5.1	4.4	0.4	0.7	0.6

Source: Health Impact Indicator DHP 2011. Note: Data are available only for 7 townships.

4.5.3. Reproductive Health

Staff concerned from Township Health Departments in each township of Kayin State provided some data regarding the reproductive health. According to the statistics (2009 -2011), overall health staff provided 61.8% of reproductive health care while auxiliary midwives provided 16.5% of reproductive health services through home delivery services during the birth of children. Percentage of deliveries at rural health center RHC is very low and it is just about 7 % in Kayin State from 2009 to 2011 (see table 20). (MIMU, RH, 2011)

Table 20. Status of Child Deliveries

Township	% of Home Deliveries (Health Staff)			% of Home Deliveries (AMW)			% of Deliveries at RHC Delivery Room		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Hpa-An	65.2	64.2	40.1	14.1	13.4	13.7	4.6	5.7	5.2
Hlaingbwe	49.2	55.7	55.8	22.5	19.2	19.9	7.1	8.2	6.1
Hpapon	78.7	76.4	77.1	9.1	9.5	9.5	10.8	14.8	11.0
Thandaunggyi	70.3	64.2	62.2	14.1	19.2	19.5	7.5	7.1	7.5
Myawaddy	84.5	85.4	84.1	11.1	10.5	11.6	21.7	16.8	28.4
Kawkareik	65.9	71.7	69.1	22.3	21.7	21.1	5.8	6.1	6.4
KyarinSeikgyi	62.5	60.2	52.4	16.7	16.4	12.7	4.0	2.8	2.3
Total Average	64.6	65.3	55.7	16.9	16.5	16.1	7.0	7.0	7.1

Source: Reproductive Health Information DHP 2011. Note: Data are available only for 7 townships.

Low birth weight in Kayin State (i.e. under 5 pounds), rate of referral and antenatal care coverage of each township from 2009 to 2011 are also described in the following table. An average low birth weight is 1.4% and the average rate of referral was 9.1% while the average AN care coverage for at least one visit is quite high (i.e. 70.3 %) in these 7 townships (see table 21).

Table 21. Status of Antenatal Care in Kayin State

Township	Low birth weights (%)			Rate of Referral (%)			% of AN Care coverage (for at least one visit)		
	Total (2009)	Total (2010)	Total (2011)	Total (2009)	Total (2010)	Total (2011)	Total (2009)	Total (2010)	Total (2011)
Hpa-An	1.4	1.2	2.0	7.1	10.6	11.3	64.3	62.3	62.8
Hlaingbwe	0.6	1.0	0.9	4.1	4.2	4.4	61.8	61.6	64.4
Hpapon	0.9	0.2	0.7	3.7	8.0	9.3	74.0	59.6	68.3
Thandaunggyi	1.0	1.4	1.3	5.1	5.6	6.4	84.1	87.5	86.9
Myawaddy	0.9	0.5	3.1	26.8	34.7	45.6	93.3	91.2	83.7
Kawkareik	0.8	2.3	1.9	7.3	7.4	7.0	65.7	74.2	73.7
KyainSeikgyi	1.4	1.6	1.2	2.3	4.1	5.3	72.9	77.1	71.5
Total average	1.1	1.4	1.7	7.4	9.6	10.5	68.8	72.5	69.6

Source: Reproductive Health Information DHP 2011, MIMU. Note: Data are available only for 7 townships.

4.5.4. Health Infrastructure

Major health facilities available in Kayin State are one 200-bed State hospital in Hpa-an, two 100-bed hospitals, two 50-bed district hospitals, four 25-bed township hospitals, nine 16-bed sub-township hospitals, eleven 16-bed station hospitals. Besides, the government established 56 rural health centers (RHCs) and 16 RHCs, which are the annexes of the station hospitals.

In addition, there are a number of health centers such as 250 sub-RHCs, 1 urban health center, 1 school health center, 1 mother and child health center, 2 sexually transmitted diseases center and 3 Tuberculosis disease centers for providing health care service to the public of Kayin State. Permitted number of health staffs for Kayin State is 1941 and 1213 out of this number is assigned in service and 728 positions (i.e. 37.5%) are still vacant.

4.5.4.1. Accessibility of Health Care Service

Coverage of rural health services is relatively very low in compare with its rural population in Kayin State. The following are the ratios of coverage for rural population in terms of different health care centers such as RHC, sub-RHC, number of beds in hospitals as well as number of health staff including doctors in towns and mid-wives in the RHCs and Sub-RHCs.

- (1) RHC coverage for rural population – 1: 23676
- (2) Sub-RHC coverage for rural population – 1: 5304
- (3) Mid-wife coverage for rural population – 1: 5815
- (4) Allowed beds at hospital coverage for population- 1: 1775
- (5) Doctors coverage for population- 1: 13586

4.6. Water Sources

The local communities mostly rely on the stream/river water, wells and springs water. Township Municipals can only provide domestic water to five of seven Townships; i.e. Hpa-An, Myawaddy,

Hpapon, Kawkareik and Hlaing Bwe through pipe water from the rivers. Water is treated with potassium permanganate. Hpa-An Town is provided with a total of 450,000 gallons of water per day from Thanlwin River in and Myawaddy Town is supplied with 250,000 gallons per day from Thauung Yin River. In Kyarinseiky, there is a private own one and water is collected and distributed from Zami River.

4.6.1. Water and Sanitation (WATSAN)

Nonetheless, most of the rural communities have difficult access to safe drinking water since they rely on natural springs, open wells and ponds, which are sometimes contaminated with water-borne pathogens. In some areas, the regional government provided tube wells for some of the needy villages, which have no access to natural water resources. The local communities in Thandaunggyi largely depend on natural springs and received no assistance from the local government.

Awareness on water and sanitation as well as personal hygiene is still limited in the local communities especially the rural households. Particularly, safe drinking water is not sufficient for the village households especially in dry season. In Hlaing Bwe, even the communities living nearby the rivers have not access to adequate safe drinking water during the dry season. Consequently, dysentery, diarrhea and other water-borne diseases had killed a number of people each year. During the assessment, some local residents in Pha-an mentioned that most villages have access to water mostly from open wells, unprotected springs, and rivers and/or ponds, which often are located in the places where there are considerable distances from their villages. These water ponds and springs are usually contaminated. In addition, morbidity of communicable diseases such as diarrhea and dysentery is also due to insufficient latrines with poor standards used by most of the rural households. However, the majority are not aware on the importance of healthy living style in their day to day lives.

Concerning water sanitation practices in Kayin State, some information and data are available only from Multiple Indicator Cluster Survey (2009-2011). According to this survey, among the 4142 sample households, only 26.8% boiled their water and 0.1% added bleach powder or chlorine into water. But the majority of households (i.e. 85.5%) used a very simple traditional water filtration system using the strains and 9.7% just let their water stand and settle. There were 8.2% of sample households, who never use any water sanitation methods and treatment. Thus, it can be generally stated that the majority of households are still unaware of using safe drinking water and some effective water treatments.

4.6.2. Access to Sanitation Facility

Overall 73.5% of the population of Kayin State has access to improved sanitation facilities including piped sewage system, septic tank/pit, ventilated improved pit latrine, pit latrine with slab, and composting toilet. However, the majority of households (i.e. 69.4% of total population) use a pit latrine with slab, which is a most common toilet facility, among the improved ones while 2.2% of total households have access to a toilet flushing to septic tank/pit and 1.2% used the vandalized improved pit latrine and 0.7% has used composting toilets. On the other hand, 18.5% of people are still using pit latrines without slabs or open pit, which is a poor toilet facility, while 7.9% of the total population has no access to a sanitary facility.

4.7. Public infrastructure

4.7.1. Communication Facility

Regarding communication, public infrastructures available in Kayin State are postal and telegraph services, auto telephone lines, facsimile and mobile phones including GSM and CDMA. There are 24 Telecommunication Offices and totally 5,079 landlines were used by people in Kayin State while four stations had been established and 5,224 mobile phones were already distributed. A total of 34 post offices are providing postal services for the people living in this state. And also seven micro-wave stations were already established and currently local residents are able to use ADSL and MPT (i.e. satellite terminals) for internet and email access.

4.7.2. Electricity

There are a number of generators with diesel engine to supply power to local communities in each township (see the table 22).

Table 22. Local Supply of Electricity Power in Kayin State

Sr.	Township	Location	No. of generators	Capacity-KW	Running KW
1	Hpa-an	Pyi/ya office	4	170	Reserved
2		Naungkamyaing	1	3.2	2
3		Kyauktalone	1	3.2	2
4		Mithayaung	1	3.2	2
5	Hlaing Bwe	Myaingyingu	2	232	185
6		Paikyone	1	64	40
7		Shanywarthit	1	22.5	22.5
8	Pha-pun	Pha-pun	3	237	180
9		Kamamaung	1	120	83
10	Thantaunggyi	Leiktho	2	83.4	60
11		Nyeinchanyayywa	1	3.2	2
12	Kawtkareik	Kawtkareik	2	768	510
13		Htotkawcoe	2	105	75
14		Kyondoe	2	145	108
15	Kyainseikyee	Kyainseikyee	3	480	260
16		Kyaikdon	2	48	20
17		Kyateywar	1	4	3
18		Kwikaleiywar	1	4	3
19		Minaact ywar	1	4	3
20		Azin ywar	1	4	3
21		Paikalardon	1	4	3
22	Myawadi	Myawadi	4	529.8	236
23		Sukali	-	-	-
24		Worlay	-	-	-

Source: Anonymous

4.8. Disasters

There was no seriously natural disasters except some floods occurring every 4 year in Hpa-an. But there has been a lot of serious impact of human-induced disasters in Kayin State especially land

mine explosions, which were the results of internal armed conflict for 60 years in this region. It was unofficially mentioned that all of the seven townships in Kayin State are still being planted with landmines. However, there is no statistics available for the number of mine-affected people in this region. Landmines have been regularly used by the military since the start of the civil war in the 1940s. In 2010, Burma ranked fifth highest in the world for landmine casualties, and was the only country in the world in which landmines were laid by both government and non-state armed forces.

Apart from man-made disaster, there was also a natural disaster, i.e. a severe flood was happened in 2011 due to heavy rains and floods came from Thanlwin River. As a result, large area of cultivated paddy field in Hpa-an area was seriously damaged in previous monsoon.

5. Existing Roles and future intentions

5.1. Government

Currently, all governmental line agencies are striving for implementation of rural development activities under the "State's Poverty Reduction Program" such as social development fund focusing on establishment and renovation of schools and small irrigation canals for the local farmers. Due to information gathered by low profile, the mission could not obtain detailed information from government department.

5.1.1. Department of Agriculture (DoA)

Proposed agenda of DoA for the reform process and planning are (a) establishment of quality seed production zone, (b) establishment of hybrid seed production for 100 acres, (c) structuring the systematic mechanize farming and soil conservation practice. Although MOAI had already launched Pesticide Law, Fertilizer Law and Seed Law, these laws are still not well functioning, especially in quarantine process in importing agricultural inputs through illegal border trade from Thailand.

5.1.2. Settlement and Land Record Department (SLRD)

SLRD has not completed to record some areas of Kayin State particularly where the land mines and arm conflict exist. Consequently, land reclamation and land confiscation issues between business companies and ceasefire groups become more complicated after the new land law has been launched in 2012.

5.1.3. Water Resources Utilization Department (WRUD)

WRUD has been providing agriculture water through river water pumping for growing second crops in some areas.

5.1.4. Department of Health

As far as arm conflict and landmine issues are concerned, it is still difficult to reach the remote areas of Kayin State where the villages are still in illegal status to provide health care services. The assessment needs to cover for the whole Kayin area for the future information.

5.1.5. Department of Boarder Area Development

This department is taking responsibility for supporting the DKBA since it had ceased fire. Currently, Nataka is providing disable groups of DKBA in Myaingyingu with 5 acres of rubber plantation per

household. The people have received rubber farms that have already planted and thus only need to continue the established plantations by themselves. The responsible persons from the Department mentioned that this program did succeed in the past due to hands out mentality existed by the project.

5.1.6. Immigration Department

Irrigation Department is mainly responsible for National ID card for IDPs and refugees, returnees .Making work permit books for out migrant workers.

5.2. UN Agencies

UNDP/CDRT in Kayin State has been implementing its development programs in Hpa-An township with the objectives of upgrading the living condition of local communities while ensuring sustainable livelihoods and balance of the environment. Some of the project activities are mentioned briefly below in table 23.

Table 23. UNDP/CDRT's Projects in Kayin State

Education Sector		Total Number
1	School Construction	36
2	Schools Renovation/Extension	19
4	Provision of School Furniture	31
Health Sector		
1	Construction of Health Centers	1
WAT/SAN Sector		
4	Construction/Renovation of Hand-dug Wells	293
8	Construction household latrines	1130
Other Social Infrastructure Sector		
1	Construction/Renovation of bridges	43
2	Construction of village paths and culverts	30

Source: Hpa-an Township profile, UNDP

5.3. INGOs

5.3.1. Save the Children (SC)

Since 2004, SC has been implementing its community development program in Kayin State with the objective of protection and developing living conditions of the children and their lives in local communities in Kayin State. Its major activities under this project are:

- (a) Child Protection in Hlaing Bwe, Kawtkareik, Phan-an, Myawady
- (b) Malaria Campaign in Kyarinseikyi and Thandaunggyi
- (c) Microfinance Development in Hpa-an and Hlaing Bwe and this program will also be extended in Kawtkareik and Myawady.
- (d) Nutrition Support in Hpa-an and Hlaing Bwe will be started with emphasis on health and wash awareness activities in upcoming year.
- (e) A project proposal regarding reproductive health supports has been submitted and it will probably be started in year 2013.

In future, SC will implement its project activities in partnership with local CBOs working in the same thematic areas in Kayin State.

5.3.2. Norwegian Refugee Council (NRC)

NRC is implementing its program activities for the purpose of supporting social needs of vulnerable groups throughout the Kayin State since 2011. Its major project activities are:

- (a) Establishment of primary schools
- (b) Establishment of RHCs
- (c) Supports on shelter construction for the local communities
- (d) In cooperation with Immigration Department, Implement activities to solve the issue of National Registration Cards
- (e) Provision of vocational trainings for the communities

NRC has planned to continue its program activities in Kayin State.

5.3.3. Myanmar Red Cross Society (MRCS)

In partnership with UNHCR, MRCS is implementing its program activities focusing on rural education and health care facilities and livelihood supports in 7 townships of Kayin State since 2004. Main activities of MRCS are as follows:

- (a) Early Childhood Care Development (ECCD) programs in 27 villages
- (b) Life skill training in 27 villages
- (c) Sub-RHC Establishment in 27 villages
- (d) Primary Schools Establishment in 27 villages
- (e) School Renovations in 6 villages
- (f) Double Unit Latrine Establishment (76)
- (g) Personal Hygiene Awareness (76 times) (1day for students and 2 days for communities)
- (h) Prevention of HIV and Malaria Awareness (support condoms and Mosquito Nets)
- (i) Livelihoods Support for Landmine affected families
- (j) Provision of vocational trainings (3 times) in Phapon, Kyainseikyi and Thandaunggyi
- (k) Landmine awareness in 12 villages of Phapon, Thandaunggyi, Hpa-an, Myawady and Kawtkareik.

5.4. CBOs

There are a number of CBOs established by the organizations working in Kayin State under their respective project activities aiming at developing capacity of local communities for efficiency, effectiveness and sustainability. The lists of CBOs are mentioned in the table 24.

Table 24. Activities of CBOs

Sr.	Name	Implementing Area	Major Functions
1	Rice Bank Committee	Food security	Manage rice bank for long-term sustainability
2	Village Development committee (VDC)	Management	Manage and Perform social, economic and development activities of village groups
3	Livelihood Committee	Livelihoods	Develop and manage appropriate livelihood options suited to local contexts
4	Village Health Volunteer	Village health care	Provide village health care services to families in their villages
5	Kayin Student Centers	Education	Support communities to get opportunity for attaining a certain level of education
7	Self-reliance Groups	Socio-economic	Management revolving funds and livelihood activities aiming at sustaining their own business
8	Child Protection Groups	Social activities	Carry out activities related to protection of the children
9	Village Health Groups	Social	Voluntary works to support health care services in their villages
10	Mother Groups	Social	Support health awareness and behavior change for the children through this mother group
11	School Committees	Social	Support and participate in activities in the schools

Source: UNDP, SC in Kayin State

5.5. Recommendation provided by Organizations in Kayin State

During the discussion with Organizations in Kayin State based on the experience, lesson learned the recommendation gave by them are as mentioned table 25.

Table 25. Recommendation by Organizations in Kayin State

Sr.	Organizations	Recommendations
1.	Government	
	Ministry of Social Welfare and	Building capacity of health staff on management and fund raising especially for providing health care services and necessary facilities to mothers and children
	Department of Agriculture	Awareness raising on different livelihoods options and improved strategy for local communities
2.	INGOs	
	Norwegian Refugee Council	Safer drinking water facilities, schools, agricultural techniques and market development, which are suitable with local contexts
	Save the children (SC)	Awareness raising on reproductive health care, nutrition, health and WATSAN
	Myanmar Red Cross Society- (MRCS)	Transportation and communication facilities (e.g. small bridges, phone), sub-rural health centers (for Phapon, Kyarinseiky, Bawgali, Myawady), safe drinking water using gravity flow for Thandaunggyi, Kyarinseiky), safe tube wells for Hlaing Bwe
3.	Local NGOs	
	Thanlwin Power Youth For Development (TPYD)	Awareness raising on mind-set development and morality

	Phalon Education Development Unit (PEDU)	Building capacity of people on improved livelihoods strategy and way of living suitable with local contexts
3.	Community Management Alumni Group (CMA)	Establish a proper coordination mechanism among the interest groups to support each other and build networking with others working for the same goal
4	Hpa-an Thu	Sustainable livelihoods practices based on agri-business Provision of health and education facilities including roads access to villages

6. Conclusions /Recommendations

Findings are extracted mainly from the collected secondary data and facts mentioned by local residents, NGO staff, line ministries and local politicians, who understand the broad regional and internal implications of addressing the challenges of local communities on livelihoods, during informal discussions.

Through few stakeholders including UNDP, INGOs, LNGOs and some CBOs who are available during the period of assessment, the assessment team has extracted some of the important key findings in various contexts of social, economic and environmental issues can be summarized as follows:

- Conflicts between Myanmar government army and ethnic armed group resulted IDPs and refugee issues and also resettlement program after peace processes: local community will need assistance for rehabilitation and/or resettle with proper livelihood assistance. There are some land mines in some township thus de-mining programs are also essential after peace process.
- Right issues include land right, human right, human trafficking and also property rights are there thus Right-Based Programs will be appropriate. Local farmers will need assistance to obtain or access official land ownership. Community development programs with community empowerment integration with various livelihood security program is also necessary
- In upgrading the local agriculture sector, LWF should look for appropriate ways and means, which are locally adaptable, economically feasible and environmentally sustainable, together with local communities and other key stakeholders particularly staff from Department of Agriculture in different townships. The possible means are:
 - Integrated land use practices that will ensure sustainable food security and proper balance of ecosystem need to be introduced and practiced in both lowland and upland areas (e.g. agro-forestry designs suited to different agro-ecological conditions of Kayin State).
 - Besides, technologies, inputs and infrastructure including good quality seeds of both existing and new crop varieties, improved agricultural techniques and efficient water harvesting system along with good irrigation facilities, etc., which are most suitable with local and regional contexts should be provided in partnership to the local

communities. In partnership with existing agri-business groups, contract farming may also be potential in this area

- Particularly, cropping pattern analysis needs to be conducted to identify suitable crops, which are more profitable and ecologically sustainable, and then based on the findings, suitable cropping patterns can be selected so as to achieve higher incomes and good markets.
- Moreover, technologies for the value adding process of rubber and sugarcane, etc. should also be provided to through the vocational trainings especially for the landless and casual laborers. Establishment of rubber and fruit trees nurseries will also provide a promising income to these people.
- Environmental issues and land use issues have been started and potential environment issues will be there due to expanding the mining sector.
 - Regarding a longer-term NRM, Sustainable Forest Management through community forestry will ensure improved livelihoods of local communities as well as establishment of mechanism to empower them in sustainable NRM.
 - Alternative livelihoods or income generation opportunities related to existing natural resources base should also be created in these areas such as community ecotourism in partnership with private travel agencies working in the area. For instance, Zwekapin and Bayinnyigu areas are potential to establish and develop as an ecotourism area in near future by partnering with private tourism groups while conserving to improve socio-economic conditions of local communities as well as to conserve these areas sustainably.
 - Introduction of other potential IG activities including livestock breeding and different vocational skills is also a vital for most vulnerable households (i.e. landless and land poor households) so as to improve the living standard of the poor people and.
- Health facilities and qualified health staffs should be adequate to provide the health services in all villages particularly in the remote areas. These include establishment of RHCs and Sub RHCs, health and WATSAN intervention including awareness raising, provision of inputs and technology. Moreover, Malaria and TB campaigns should be established at sub-township or village tract level to reach the grass roots in order to provide awareness and knowledge on prevention and control of communicable diseases and know-how on how to keep a healthy life.
- Due to scarcity of water and poor quality of water in the area, healthy and sufficient water supply systems especially in dry season such as effective protected well and gravity flow water distribution in the upland and on the other hand , water filtration system are also needed for the improvement of water quality. In addition, raising awareness of local

communities on personal hygiene and environmental sanitation as well as building their capacity on preventive measures of the communicable diseases.

- In Kayin State, due to prolong political conflicts over a couple of decades, education facilities and infrastructures and resource persons are immediately needed especially in the rural area. Establishment of new schools and renovation of schools, supporting teaching aids and materials, training teachers for effective teaching skills is a must for development of education system and promotion of knowledge level for the rural communities nowadays.
- In conclusion, in order to formulate a more consistent and comprehensive project design and planning, LWF should further conduct situational analysis assessment in the targeted townships within the State.

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