

Title	The Impact of Sin Tat Hydro- Electricity of River on the Livelihood of Kone Village, Kyauk-se Village Tract, Sagaing Region
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Abstract	<p>The objectives of this study is to describe the socio-economic changes based on Kone Village and to explore the changes of agriculture and cow breeding of local people from 2010 to 2017. The Kone Village lies beside SagaingMonyar Highway Road. Before 2004, as Kone Village lies in the tropical zone of Central Myanmar, rain paddy is mainly grown. Then, rain water was blocked to grow such crops as millet, sesame, gram seed, cotton tree, pigeon pea and groundnut were cultivated. Thus, it seemed to be subsistence type. The native raise livestock not for cultivation but for milk. The milch cow give milk and traditional snacks such as milk rice, milk cakes, sour milk and steamed banana, etc, are made and they sell them to their neighboring villages and Mandalay. Thus, before 2010, the economic condition of natives was done by women and they had close relation with outside area.</p> <p>In 2004, according to the implementation of hydro-electricity of river by the government, Sin Tat hydro-electricity of river was initiated and finished in 2010. Then, in 2016, through the support of Ministry of Livestock and Fisheries, families in the village were given loans so that they could breed cows. And trainings for breeding milch cow, guiding to grow mont- par-sar grass and distributing such kind of grass have been done by Myanmar- New Zealand milch cow development project. Therefore, it will be studied how Sin Tat hydro-electricity of river supports the economic condition of the natives and develops the village. And how the local people economy will be changed and how farmer transformation will be focused on the research paper according to Sin Tat hydro-electricity of river. Ethnographic research method will be used in this research paper. Key Informant Interview and In-depth Interview will be used.</p>
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The Impact of Sin Tat Hydro- Electricity of River on the Livelihood of Kone Village, Kyauk-se Village Tract, Sagaing Region

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Abstract

The objectives of this study is to describe the socio-economic changes based on Kone Village and to explore the changes of agriculture and cow breeding of local people from 2010 to 2017. The Kone Village lies beside SagaingMonyar Highway Road. Before 2004, as Kone Village lies in the tropical zone of Central Myanmar, rain paddy is mainly grown. Then, rain water was blocked to grow such crops as millet, sesame, gram seed, cotton tree, pigeon pea and groundnut were cultivated. Thus, it seemed to be subsistence type. The native raise livestock not for cultivation but for milk. The milch cow give milk and traditional snacks such as milk rice, milk cakes, sour milk and steamed banana, etc, are made and they sell them to their neighboring villages and Mandalay. Thus, before 2010, the economic condition of natives was done by women and they had close relation with outside area.

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Introduction

Everybody always struggles to get basic needs in life. They make their lifes through different kinds of profession. But, among basic needs, eating plays a vital role for humans. So, people have survived through agriculture and domestication since ancient times. The role for agriculture is dependent on weather conditions. Then,

weather in most of the countries is different. Weather is a key fact for agriculture. In arid region, agriculture is dependent on the rainfall, there arise some. But, nowadays, dams, reservoirs and plans for pumping water from the river are established to support agriculture.

Kone village's origin is AungTha village, Sagaing Township and when it founded, it was called Kone village. The history of Kone village is based on Shwe-kyat-kya Pagoda. According to the oral history of Kone village elders, the old man called Phoe-Pay found one pagoda among the bush when he cleared his land to cultivate. Later that pagoda was renovated by the villagers and it was called "Shwe-Kyat-kya" Pagoda. Another oral history about shwe-kyat-kya Pagoda was that when Myanmar ancient king times, the princes hunted in the forest and found the golden cock and that cock fled away. After that people called the place that the cock fallen area was "Shwe-kyat-kya". And then, near that Pagoda, Kone village was started to establish. So, they believe the Kone village was established over 200 years ago.

Most of the Kone villagers are Myanmar (Bamar) and they believe in Buddhism. Because of that, they devote to the monks and monks also support the villagers' needs. When the village has been established, villagers learnt monastic education at the monastery. Nowadays, Kone village has Government Middle School and develops more. The local people in Kone village mainly live on agriculture since they established their village. But their area is arid area so that their livelihood cannot totally rely on agriculture and their main income is based on milk and its products.

Sin Tat hydro-electricity of river was implemented on 27th May, 2004 through instruction of the State. It was completed on 31st March, 2010. Sin Tat hydro-electricity of river lies in Sin Tat village, Sagaing Township, Sagaing Region. Water resource for the plan of Sin Tat hydro-electricity of river is that from the Ayeyarwaddy River. Water from Sin Tat hydro-electricity of river is distributed to such villages as Kyauk-se, Ta-ein-te, Pe-ka-do, Nyaung-pin-sin, Bye-ta yaw and Sin Tat. The amount of water supply is 39,000 cubic feet and water is distributed for 6500 acres-1624 acres for paddy and 4876 acres for other crops. In this paper, I will focus on the impact of Sin Tat hydro-electricity of river on the livelihood of Kone Village, Kyauk-se Village Tract, Sagaing Region. Moreover, this paper studies agriculture changes and Sin Tat hydro-electricity of river has created changes for the economic condition of the local people.



Figure(1.1) Sin Tat Hydro-electricity of River

Aim and Objectives

The aim of the research is to describe how Sin Tat hydro-electricity of river supports the economic condition of the natives and develops. The objectives are to elicit the socio-economic changes based on Kone Village and to explore the changes of agriculture and cow breeding of local people from 2010 to 2017.

Research Methodology

The ethnographic research method was used in this study. Key Informant Interview and In-depth Interview are done. Elderly person, farmers and women hawkers are interviewed with Key Informants. In-depth Interview was done old women hawkers.

Livelihood of Kone Village

Kone village lies in the tropical Zone of Central Myanmar and rain paddy is mainly grown in their area before 2010. Then, rain water was blocked to grow such crops as millet, sesame, gramseed, cotton tree, pigeon pea and groundnut were cultivated later, the native started to raise cow-breeding not only for rice plantation but also for milk. The milchcow can be used as milk and traditional snacks such as milk rice, milk cakes sour milk and steamed banana. These products go to the neighboring villages near kone village and Mandalay city. In 2004, according to the implementation of hydro-electricity of river by the government, Sin Tat hydro-electricity of river near the Kone village was initiated and finished in 2010.

Other livelihoods of Kone village include grocery, tailing, selling cow food, beauty saloon, building houses parts, selling carparts, motor-cycle parts. After sin Tat

hydro-electricity project in 2010, the native man mainly conducts their livelihood on agriculture again. They cultivate rice, millet, sesame, gramseed, cotton tree, pigeon pea and groundnut.

Farming

There are both paddy land and farm land in cultivated areas of the Kone village. But local people mainly cultivated on paddy land to grow rice. In olden days, local people only relied on rain water for their cultivation. But in 2010, Sin Tat hydro-electricity project started to establish near the Kone village. Therefore, local people can get enough water from the river for their cultivation nowadays. Their cultivation process became quicker and their economic status develops and changes gradually. According to farmer U Kyaw Naing Win Said,

"Previously, we expected rain a lot. Now we don't need to expect rain because of Sin Tat hydro-electricity project Paddy field become well because of river's water. According to the effect of Sin Tat hydro-electricity project, we can have a chance to do better cultivation in our Kone village now".

The local people in Kone village cultivate both Kouk-kyi rice and Moe Kyo rice. Kouk-kyi rice that were cultivated from July to August and reaped in December annually. Moe Kyo rice was cultivated in February and reaped in April. But the local people mainly cultivate the Kouk-kyi rice. Kouk-kyi rice is eatable and also can get better price to sell. If Kouk-kyi rice will grow, one rice called Aye Yar Min gets. And, if Moe Kyo rice will grow, Ma Naw Thuka rice gets.

Nowadays, Aye Yar Min rice is 35000 kyats (MMK) for the new product and 50000 kyats (MMK) for the old one. If some farmers want to sell the new rice product at the short period, they will get low price. Therefore, the new rice was stored until it becomes old. People prefer to buy old rice quality because it is good to eat. Because of that reason, Moe Kyo rice is rare to cultivate in Kone village now.

Before 2010, local people needed to buy rice Shwe Bo for their families' consumption. But after 2010, cultivation is better and they have surplus rice not only for their household but also for selling because of Sin Tat hydroelectricity project. Nowadays, local farmers of Kone village distribute their rice to Kho-Taung village, Chauk Pout village, Naung Pin Tar village, Hin Yat Su village, Da Ma village in Mandalay region and Na Htet Kyi quater, Naung Kone village in Sagaing. Therefore, local people's livelihood become well and they can earn more.

Cow breeding

Livelihood of Kone village's local people based not only on agriculture but also on cow breeding. There are three kinds of cow breeding: Myanmar cow, artificial cow and jersi cow (combined Myanmar cow and artificial cow). According to the governments instruction, Ministry of livestock and fisheries, 3 years project, they lend farmers about 30 million kyats (MMK) of loans into the local people. And then, they lend 2,000,000 kyats (MMK) loans to one household (and in Kone village, there exists 25 household only).



Figure (1.2) Myanmar cow, artificial cow and jersi cow

One household who get loan collect 3 viss of milk per week and feed to the Primary students of Sagaing Region and they need to give back their loan after 3 years later for their loan's interest is given back by this way. In Kone village, there are two kind of may-hton cows – Kyat-pyiet cow and kyat-ma- pyiet cow. The former is a kind of milch cow that yields visses of milk and the latter produces less milk. They are fed with sesame oil-cakes, pea paste, fodder soaked in water so that much milk is got. Nwa-sar-chauk is sheaves of paddy. Myet means millet. Millet is grown for cows. Two kinds of millet are akha-pyaung and moe-oo- pyaung. The former is grown in waso and wakhaung while the latter in Tagu. After one month, they are reaped for cattle and they are grown again.

Then, in 2016, Myanmar Dairy Excellence Project, a partnership between Government of Myanmar and New Zeland to improve dairy farming in Myanmar encouraged those in Kone village to introduce Mon-par-sar grass for cows. Such kind of grass is a perennial plant, at least 25 years. So, the grass is initiated in Kone village. If a cow is fed with one and half visses of sesame oil-cake, only half viss of oil-cake is mingled with mon-par-sar grass for cows. It saves expenses. As said U KyawNaing Win,

"Only members of the project know about mon-par-sar grass but others don't. When there is no land, they can't grow the grass. Those who own plots of land could do so. The grass lasts for 25 years."



Figure (1.3) Mon-par-sar Grass

In domestication, oxen are sold when they are bred, but they domesticate only cows. Most families in Kone village make their living by making and selling dairy snacks. Milk is sold for 160 kyats for one tin. So, the domestication is a kind of cottage economy of families.

Dairy snack foods

Kone village lies in the dry zone. The region gets less rainfall. So, as agriculture seems to be a subsistence type for them, the wives make dairy snacks such as milk rice, cooked milk, etc, and sell those snacks in order to support the family anyhow. Then, they make more snacks gradually rather than milk rice and cooked milk. The foods sold in the village are milk rice, solidified milk cakes, milk yougurt, milk jam, cream, ice- cream cream, egg pudding, steamed banana, sa-nwin-ma-kin, sago, banana pudding, milk gelatin, coconut milk gelatin, etc.



Figure (1.4) Snacks

Women go to Mandalay to sell their dairy snacks. Such kind of selling is regionally known as zay-taung-lite. Most women in Kone village prepare to warm milk, make gelatin, and make milk sour, etc, since 4 pm till night. At 3 o'clock in the early morning, they make milk rice, gelatin and sago. At six, they are ready to go to Mandalay by bus. After one hour's drive they get Mandalay and sell their snacks. In doing so, they sell their foods in one place in the market or in shop. Some go round the quarters as vendors. At noon about 11 o'clock they come back to the bus stop and return home. When they get home at 1 o'clock in the afternoon, they take a rest and resume their daily chores at about 4 o'clock. As said Daw San Kyi,

"Doing zay-taung-lite, transportation was rather difficult. Now, there are taxi-bikes and then we can access easily. I have sold for ten years, so, I have carried loads of foods and walked much, I now suffer from bulbous growth on my legs. Selling dairy snacks provides income for my family".



Figure (1.5) Hawker

In making and selling snacks, the native women spend most of their time in life. But, they collect extra money got from snacks and use those in farming and domestication. Then, farming and domestication seems to be rudimentary resources for dairy snacks. After 2010, as those activities develop, dairy snacks are much profitable.

Conclusion and Discussion

In 2010, Sin Tat hydro-electricity project started to establish near the Kone village. Therefore, local people can get enough water from the river for their cultivation nowadays. In 2016, Myanmar and New Zealand co-operation project effect on cow breeding of local people. Local people of Kone village's livelihood changed and their agriculture and cow breeding become better. They can produce rice

and milk products more and do not need to buy outside area and their economic status develop more and have surplus.

One thing that is weak for their business is that most of the sellers snack foods of are women and because they are not able to pass their Matriculation exam. Those women have to pay their time to go around the village for their snack foods and cannot attend the government school.

But for men, they helped to their wife's snack food selling only & cannot have enough income before 2010 and later, they can do cultivation business more according to the Sin Tat hydro-electricity project established. By this way, their livelihood status gradually become better and their social life is also affected by this project. Therefore, the local people's livelihood strategies relate to the Sin-Tat hydro-electricity project and they have good opportunity to do the cultivation business because of the project's support.



Figure (1.6) Kone village

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