

## CHANGE IN A POOR FAMILY BY AGRO-ECOLOGICAL TRANSITION

Coming back to Bac Kan at the end of October, we met one among many persons who actively participated in Project activities in Thanh Van commune, Cho Moi district, Bac Kan province. Grown up in a poor ethnic minority family in Bac Kan province, Mr. Ly Hong Hai is now a model village head who leads many movements and economic development activities in the village. He is 52 years old with a much older appearance. Being a disabled person whose right eye was destroyed 20 years ago in an accident, Hai is still the key support of a five-member family including he himself, his wife and his three daughters. His wife contracts the disease of vestibular disorder. His children are small, the oldest is at grade 8, the smallest grade 1 and the other is 11 years old who was born with congenital defect and is now studying at the Community Education Center of Bac Kan province. Being the only labor in the family, he has to carry every single thing including earning money to cover his children's education as well as other living expenses.



His house is located near the forest, yet his family owns only 0.3 ha of forest land. They mostly lived on the production of paddy field in 2,800m<sup>2</sup>, which was not much, and chicken raising activities. Within his limited rice cultivation area, 1,000m<sup>2</sup> could only be cultivated in one crop – fall crop – only, and left fallow during the spring crop time due to lack of production water, similarly in winter crop, no cultivation activities by him or other households were available due to the cold. With such income, it was hard for him to ensure his and his family's daily life. His total household income from cultivation, husbandry, and forest product exploitation was of between VND12-15 million, which could explain why the poverty and hunger kept sticking to him and his family.

Since 2011, Mr. Hai as well as the other poor and near poor households in Na Kham village have joined actively in the climate change adaptation agriculture production and agro-ecological transition models using indigenous knowledge supported and implemented in the commune by the Agriculture and Forestry Research and Development Centre for Mountainous Region (ADC), Thai Nguyen University of Agriculture and Forestry. At the moment, under the supports of ALiSEA network, Mr.

Hai is continuing to maintain his models and help other households in community to scale up the models.

After being trained and joining the research on CC impacts and the role of indigenous knowledge in agricultural production and agro-ecological transition, in addition to rice cultivation, he has led and advocated so that the other 17 households in the village joined the cold resistant potato model since 2011 winter crop in the land area which used to be fallowed at winter time. By applying his own experience and the scientific knowledge gained from the trainings, after three months developing the model, his family earned around 2 million VND (after deducting all production costs) from 300m<sup>2</sup> planting potatoes. With consideration to the little cultivation area, the amount is not small at all.

Since early 2012 until now, his family and 24 out of 43 households in Na Kham continued to plant

green peas, a drought resistant and adaptive to climate change crop, which is supported by ADC. He used the local green mung beans variety which local people used to plant in their gardens and fields. He tested planting green mung beans on 200m<sup>2</sup> of one crop land area. After two months implementing the model, he is currently harvesting the third time. He estimates that with the price of 30,000-35,000 VND /kg, then he



might earn 1.5 million VND after deducting all costs. This is not a small amount with consideration to the total piloting area of 200m<sup>2</sup> only. In the past, if he wanted to earn VND 2 million from green Mung beans, then he might have cultivated in 1,000m<sup>2</sup> of field. With the experience of inter-cropping, now he also plants some maize in the green peas field; the maize could be harvested early for food purpose and to clear land for the rice fall crop.

“Since the application of production model supported by the Project and of right technical and scientific measures, the potatoes and green Mung beans have developed better than in the past when farmers followed the traditional cultivation method where they would dig a hole and put the potato seeds in to plant potatoes and they dug a hole and put the green pea seed in, no fertilizer was used. The

model receive technical support from the Project could develop well since local people are encouraged to use micro-fertilizer made of manure and agricultural side-products. With limited chemical fertilizer used, the plants grow well, bear more fruits, less pesticide, and the number of harvesting time of the green Mung beans also doubles (4-5 times). With the models where the project provided technical supports, the later crops are much better than the previous one, less pesticide” commented Mr. Hai.

Now some of the hardness in his life has been released since the cultivation and care of green beans and potatoes is not as tuff as going to the forest to get firewood for sale or to exploit wood therefore his wife could join the work with him. His family is now rated as near-poor household, instead of poor household some years ago. He has planned to replicate the model of green bean to apply in the whole one-crop area fallowed, and to increase the potato planting area in winter crop. He also shares his own experience and advocates other households to apply the model like him. With his plan, I strongly believe that in the future, his family will eliminate the poverty, they will have a better life and his children will receive sufficient education and care as he and many other people in the area expect.