AGRICULTURAL PRODUCTION OF CA DONG PEOPLE IN RESETTLEMENT AREA OF TRANH RIVER HYDROELECTRIC NUMBER 2: CURRENT SITUATION AND IMPACT FACTORS*

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In Vietnam, the construction of hydropower projects has contributed significantly in the cause of industrialization and modernization of the country. The place where hydropower projects are built is mostly inhabited by ethnic minorities - communities that rely primarily on land, a very important source of livelihood security. In the context of the lack of common productive land in resettlement areas, the orientation for agricultural production is to promote indigenous knowledge combined with increasing scientific and technical application; shifting from small-scale production practices to large-scale commodity production. However, the research results of this article show that many obstacles in the transition process are being posed such as limitations on natural resources, traditional production thinking or the suitability and effectiveness of scientific - technical application models. When agricultural production does not ensure food security, a number of implications for people's lives are increasingly evident, such as poverty, preserving cultural identity, social relations and resource protection. Since then, it has set the role of the State in researching and building appropriate agricultural production models to exploit local strengths and ensure sustainability.

Keywords: Agricutural production; Ca dong ethnic group; Tranh River Hydropower number 2 area; Tra Bui Commune, Bac Tra My district, Quang Nam Province.

1. Introdution

Being one of the 5 local ethnic groups of Xo-dang ethnic (Ca dong, Xo teng, Mnam, Xodra, Ha lang), Ca dong ethnic group has more than 32.000 people (Quang Nam provincal ethnic committee, 2019). They populated mainly in the mountainous area of Quang Nam province (Nam Tra My district and Bac Tra My district), the remaining groups live primarily in the northern province of Kon Tum province. With the total population of 45.488 people of Bac Tra My district (08th August, 2019), the Ca dong group is the majority with 18,281 (40.1%), the rest are Kinh, Cor, Gie Trieng (Bhnoong group), Mnong, Thai, Muong, Dao, to name but a few.

This study was conducted at Hamlet 6, Tra Bui Commune. This is a mountainous commune in the west of Bac Tra My district and 49km away from the district center with a natural area of 17,904.74ha. Currently, there are 6 hamlets in Tra Bui commune (4 resettled villages and 2 local villages). With a population of 1,376 households/6,360 people, the ethnic groups residing in the commune include the Ca dong people (1,128 households), the Mnong (195 households) and some other ethnic groups such as Kinh, Thai, ... (People's Committee Tra Bui commune, 2018). The poor households in the whole commune are 879 households, accounting for 63.5%. Starting in 2006, the Tranh 2 river hydropower project was built on Tra Bui commune land. The construction of this hydroelectric plant caused the entire agricultural land of the commune to be submerged in the lake bed and 1,373 households in the commune had to be relocated to resettlement areas.

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The distance from Hamlet 6 to commune center is 4km; to district center is 55km, and away from the old village is 20km. Currently, there are 266 households/1.240 people in Hamlet 6, of which Ca dong groups comprises 204 households, Mnong ethnic includes 54 household and Kinh people possess 4 households.

The total natural area of the village is 4,718.8 ha, of which residential land is 10.79 ha (0.23%), agricultural land is 692.84 ha (14.7%), forestry land is 3,245.15 ha (68.77%) and other types of land is 770.02 (16.31%).

2. An historical overview of current research

Studies in Vietnam and around the world show that resettlement by development projects poses a lot of problems related to sustainable development that unstable livelihoods is one of them. Unstable livelihoods have created many negative social consequences such as spontaneous migration, devastating environmental resources and especially poverty. In most areas of hydropower resettlement in Vietnam, many studies have proved to be "not equal to the old place" with the problems of land, employment and living environment. In terms of livelihoods, arable land for households in resettlement areas is a "vitalness", but many hydro resettlement projects have not solved this problem effectively, including regions from the Northwest (Dang Nguyen Anh, 2007; Nguyen Van Quan et al., 2011; Pham Quang Linh, 2015; Trinh Thi Hanh, 2017) to the Central and Central Highlands (Doan Tranh, 2011; Tran Thanh Diep, 2011; Tran Dinh Hang , 2015; Vu Que Huong, 2015). Studies have shown that the lack of resettlement land preparation has led to a serious decline in agricultural production. Consequently, many challenges are being posed to the sustainable development of the affected communities such as unemployment, poverty, social unrest, abuse of natural resources, and so forth.

Due to the specific features of natural and ethnic conditions, agricultural activities of Ca dong people in Tranh River hydropower number 2 resettlement area are giving a rise to particular difficulties and shortcomings. Thus, this study hopes to further contribute in making this issue clearer in the general picture of the livelihoods of the Central Hydropower Resettlement Area in Vietnam today.

3. Methdology

This paper presents the experience of the two doing ethnographic fieldworks in 2019 and 2020 in Tra Bui commune, Bac Tra My district, Quang Nam province - the resettlement area of Tranh River 2 hydroelectricity. Besides, techniques such as in-depth interviews, group discussions were applied when researching on topics such as the status, advantages, disadvantages, and issues raised in agricultural production of the studied community. Meanwhile, the comparative method, the data analysis method, the expert method, to name but a few are also applied in this research to accomplish an objective and scientific results.

4. Research results

4.1. Actual situation of agricultural production

4.1.1. Cultivation activity

*Staple-food crops and cash crops on burnt-over land

In previous times, in the old residence, every Ca Dong household in Hamlet 6 had a few plot of upland fields which are about ten hectares for rotating cultivation. In many families, the fallow period can be up to nearly 10 years. Therefore, food production is always guaranteed because this type of cultivation retains the fertility of arable land. However, in resettlement area, while the quality and area of land are significantly reduced, the population increases. The quality of the land in the resettlement site is very imporverished and high slope with many gravel rocks, causing difficulties for cultivation. The plots of land are be ciltivate alternately. The first crop starts after slashing and burning period, they intercropped both rice and acacia. Then, after harvesting a first rice crop, acacia is let continuously grow and then being harvested until they are three years old onwards. Next, people continue to plant a new rice crop which is also the same time the acacia seeds, falling from the previous crop, grow into seedlings. Thus, time for the land restoration has not been guaranteed due to the insufficient pieces of land for rotation.

Despite being provided with high-yielding seeds and training in new cultivation techniques, basically, the technique of farming of Ca dong people remains little changed compared to before. It is the result of farming practices of distributing, burning, poking, teasing and overreliance on nature without using fertilizers and pesticides. Besides, many traditional rice varieties suitable for their way of farming are maintained growing such as Ba Trang rice, Doi Do rice, cassava leaves red, sticky corn, to name but a few intercropping with plants such as bananas, sweet potatoes, taro, gourd, squash, bitter melon, and so forth. Before planting, families organize an offering ceremony for ancestors and the soul of rice to pray for a bumper crop and pleasant weather. In addition, Despite the availability of media for weather forecasts, argricutural calendar is still an important factor helping people to have a good planting plan. They observe natural signs such as the change of plants and the animals' behaviours in

order to arrange the production plans accordingly. Alternatively, so as to expand the area of cultivation, Ca dong people diversified the land, took advantage of all the minable plots for cultivation such as riverside soil, land along the stream, near water sources, land right next to their houses and even old forest land, protective forest land. In particular, they returned to the old village to exploit a large area of land, the part that has not been flooded, for cultivation. When fully utilized and exploited, the soil quality has become worse and worse. Since the poor soil quality, short turnaround cultivating time and locals have not applied science and technology to production, the crop yields is reduced significantly ranging from 5 - 10 quintals per ha to only up to 2.5 quintals per ha, even years have crop failure as in 2019.

* Wet rice

Due to climate change as well as water scarcity, wet rice planting is often low yielding and almost impossible to cultivate. In the village, around 10 households are able to maintain cultivation with a crop per year instead of two crops per year as before. Before resettlement, every Ca Dong family used about from 10 to 15 ang [1]of paddy seed per crop and harvested around 130 bags of rice[2]. However, with the current soil condition and the same amount of seeds, the yield is only approximately 40 bags, not counting years of crop failure due to drought. Wet rice crops suffered a severe crop failure due to a drought lasting from December 2018 to October 2019, which is rarely the case when in the hydroelectric reservoir area and interviewees said, the soil is so barren that "any plants cannot survive".

Facing this situation, the Project of Improving food security for small-scale farmer households under the SRI method of Japan has been implemented in Hamlet 6 with intensive rice cultivation model. This new rice variety reaches high yield but requires proper care technique and fertilizer usage. In addition, a cultivation techniques class towards this new variety was organized and the results of the first year's trial were quite satisfactory. It grew well, being less infected as well as had high yield ranging from 50 to 55 quintals per ha. However, from the next crop onwards, when people started to implement the care techniques, they did not follow the instructions such as using fertilizers and pesticides during the production process. As a result, this plant inevitably encountered some diseases such as Cnaphalocrocis medinalis Guenée, red leaf disease, brown planthopper and had low productivity. Therefore, local authorities find it difficult to effectively applied this model to the locality. It not only because of the ability to access to science and technology but also topographic and land conditions such as ground of the fields, irrigation systems and other factors.

* Fruit trees and commodity crops

Fruit trees are also experimentally grown by Ca dong people in the resettlement area, mainly to serve the needs of the families. Nonetheless, these varieties are unsuitable to the soil conditions in new settlement. It has led to the abandon of households' gardens in most part of the area. Only a few households invested in planting fruit trees such as rambutan, papaya, jackfruit, mango, star apple, custard, to name but a few.

Cinnamon, one the important trees has been focused on development towards specialized cultivation and commodity production in Quang Nam province. Since Tra My's cinnamon has a typical aroma and pungency, its cinnamon bark and cinnamon essential oil are used extensively in many areas such as the medical and pharmaceutical industry, food processing, process flavor. At the same time, Quang Nam Province issued a Resolution on planning and developing cinnamon tree in the area to 2025, orientated to 2030. In particular, Bac Tra My is one of 4 districts planned to develop in order to reduce poverty and raise people stadard of living in the area. (Giang, 2018). Accordingly, a number of Ca dong households in Hamlet 6 switched to cinnamon cultivation because of its advantanges such as good adaptability, low labor cost and low fertilizer prices with a little care in early period of planting for digging holes, nursing seedlings, weeding. However, due to the long planting time from 10 to 20 years, many people, in recent years, have stopped growing cinnamon and switched to grow acacia. Moreover, in resettlement areas, land scarcity seems to increasing considerably, hence, the cultivation of pperennial plants such as cinnamon is not the optimal option for people to choose[3].

In order to create favorable conditions for the afforestation development, the People's Committee of Quang Nam province has directed departments and agencies to promote propaganda to raise the people awareness on proactive planting, taking care and expanding acacia planting area as well as maintaining new planted areas after exploitation. Enhancing training on technology transfer for farmers has been implemented to improve crop yield and quality. With this orientation and acacia's ability to grow, develop in all terrains and to withstand pests and diseases well, this tree becomes a key crop for people in Hamlet 6. Not only staple-food crops and cash crops, but also acacia is applied

[1]. A ang is about 10 kg

[2]. A bad of rice is about 50 kg

[3]. Fieldwork material by Pham Thi Thu Ha, Institute of Anthropology

some basic techniques of planting and caring. Apart from it, Ca dong people only planted seedlings in the first crop, afterwards, they used self-growing seedlings instead of buying new seedlings to plant as trained. They only trim the seedlings if they grow too dense. They also weed a few times and do not use fertilizer during plan growth process. Acacia gains the best price at the age of 5 years, most Ca dong people practically harvest the plants when they are 3-4 years old because of the need for expenditure monthly. The average price of 5-year-old Acacia wood is ranging from 700 to 800 thousand VND/m3 and 1ha of acacia accounts for 30 million VND. In contrast, with the young 3-year-old acacia trees, locals are forced to sell at low price at about from 10 to 15 million VND/ha. Besides, there are several the wrongdoing in cultivation techniques application such as letting seeds grow on their own, not keeping the distance when planting trees, the non-use of fertilizers and non-periodict weeding, unaware of pest and disease situation of plants. In addition to this, the high transportation and exploitation costs due to unfavorable traffic have made the productivity, the output and the price of Acacia trees are lower than 1/3 up to half of the Kinh people who lives nearby. Not to mention the challenges of farming place far from roads and transportation difficulty, the total incomes of acacia selling is even lower, just from 5 to 7 million VND/ha after deducting expenses for exploitation and transshipment. Even though, acacia trees are underestimated economically by both authorities and locals, people are still expanding its planting area suffuse on both forestry land and agricultural land where are lacking of irrigation and difficult to cultivate. They believe that "it is difficult to grow other types of plant on the former acacia soil."

4.1.2. Animal husbandry

Previously, Ca dong people raised cattle and poultry mainly for their traction and for sacrificing purposes in religious rituals of the family. At present, animal husbandry becomes a promising livelihood activity when livestock products become commodities with high economic value. According to commune's statistics, Hamlet 6 has 333 buffaloes, 166 cows, 584 pigs and 1,390 poultry of all kinds.

Most people continue to develop local black pig breeds, although it is not productive, slow-growing but the quality of meat is considered as much better than hybrid pigs and get the higher price when sold in the market. In order to develop local pig herds, many families breed and sell to other households in the village. In addition, wild boar hybrids are also bred by many households because locals reckon that there is almost no different meat's quality between them and wild boar hybrids. Captivity is applied instead of free grazing, so livestock is fed two times a day by planted crops such as taro and banana. Some households have started raising hybrid pig breeds (white pigs) but most of them have not created a habit of feeding by industrial bran. Moreover, the number of pigs is limited due to low economic effect, high investment cost for breeds, low price of barns, lower meat quality than local pigs and not easy to sell.

Buffaloes and cows have high economic value in Ca dong comunity. Therefore, those who own a number of buffaloes and cows is considered as "the rich" of the village. Thank to their high value, when occasion is called such as wedding celebration, funerals ceremony, accepting medical treatment, to name but a few, selling buffaloes and cows could cover the expense. There is a little change in choosing breeds because Ca dong people still mainly remained raising local breeds. However, unlike before, they have invested in fencing at a relatively expensive cost on upland fields for grazing. Currently, there are about 6 households having a herd of cattle with the number of dozens in Hamlet 6. In terms of some poorer households, although they have been granted new cow breeds, but most of them have not been able to raise and develop it in to a herd because of the unsuitable natural conditions and people misdoing caring techniques.

In terms of poultry, the number of livestocks is much less than before due to the limited living space and poor resistance of the old breeds to hot, dry weather in the resettlement area. As a result, many of the livestocks died shortly afterwards, or stunted, growing slowly. Some households also tried to find the way out by buying and raising poultry from the delta, but fail to develope the herds due to unadaptable of the animals to the new environment. In addition, the residential land is so cramped that does not provide enough space to expand animal husbandry area. Therefore, most households only use small cages to keep a few chickens and ducks.

A big difficulty for animal husbandry is that the disease occurs frequently in this place. Since pigs are kept in barns and cows and buffaloes are raised in a certain area on the upland fields, when an epidemic occurs, it may spread quickly. The common diseases such as foot-and-mouth disease in buffaloes, cows, cholera in pigs and avian influenza in chickens and ducks led to dramatically decrease in number of the cattle and poultry flocks, causing significant economic losses. Recently, the heavy losses caused by African cholera and foot-and-mouth disease have greatly affected to the reinvestment decision of many families.

Ca dong people have received a lot of support

from local authorities as well as encouragement in animal husbandry development, especially from the Department of Agriculture and Rural Development, Bac Tra My district. Not only that, local authorities often send veterinarians to regularly monitor animal husbandry in the villages. They also organize livestock training classes for people twice per year. However, this livelihood activity has been working ineffectively in Hamlet 6. Besides the objective reasons, another subjective factor comes from Ca dong ethnic group, whose consider as having limited knowledge about animal husbandry techniques. A number of them seem not to be fully aware of the ability to spread rapidly on a large scale as well as the huge damage caused by the disease. As can be seen from the deep interview in the research place, they have not been done any vaccination for cattle, built no cages as well as let the cages in poor hygiene condition. To be more specific, when buffaloes and cows are sick, not all households areolate the sick ones from the barns or grazing areas, leading to the rapid spread of virus to the family and neighbors' livestock. They even hided and deliberately sold, slaughtered the sick and dead cattles in the epidemic area. Not to mention that they still mainly use folklore experiences to treat the infected cattles without combining effective scientific knowledge such as hygiene, pesticide spraying, disinfection, to name but a few.

4.2. Factors affect the efficiency of agricultural production

The situation of agricultural production of the Ca dong people in Hamlet 6 shows that the new production model with scientific and technical advances has been actively propagated and supported by a number of organizations and authorities at all levels in the resettment area. In the context of limited natural resources compared to the past, people have boldly tried experiments on growing new plants and raising new animal varieties. They also initially applied science and technology techniques to expand their prodution scale and increase productivity and yield. However, agricultural production activities have not brought about the desired results and raised a number of of concerns, namely:

- *Firstly, unfavorable natural conditions*. In fact, the natural capital, one of the most important capitals of people's livelihood is seriously reduced. Specifically, land scarcity, the poor quality of soil, high slope, gravelly soil, dry climate and water scarcity is considered as main factors causing the limit of crop productivity and livestock development. Besides, the investment in fertilizer and pesticide, especially for acacia and cinnamon trees is so expensive that many of households can not afford. Apart from the expense of fertilizer purchase, people have to pay large labor costs to "carry" fertilizers to the upland fields. Some people said that the steep terrain and gravelly soil also make this investment inefficient, especially in the rainy season. Since the forest have been managed by the State, the area of grazing land and food sources becomes limited, plus climatic conditions compared to the old places, so the animal husbandry is also less developed.

- *Secondly, the ability of science - technology application in production is limited*. Few people still think that the application of new science - technology techniques in agriculture is unnecessary, because of the belief that everything is under control of the supernatural forces, not humans. Therefore, many agricultural rituals such as ceremonial feasting, new rice ceremony, and so on are still conducted with the hope of bumper crops. Furthermore, the farming practice is completely dependent on nature. Cultivation land often supplement with no organic fertilizers as well as is continuously cultivate, causing the soil erosion and soil degredation. In contrast, a number of Ca dong people have higher awareness of the positive results by using these new varieties and production techniques. However, they still use tradional farming techniques because they claim that new breeds and techniques reduce the quality of agricultural products. They are not suitable for local's traditional food practices. Through doing fieldworks, we saw free bags of fertilizer, which were distributed to Ca dong's poor households, were discarded in piles, some households sold them cheaply to Kinh people.

- *Thirdly, propagandas and training programes on new production techniques are still inadequate*. One of the reasons why people apply little or do not apply scientific and technical advances in production is that agricultural extension activities are not really effective. It is noticeble that the mode of propagation and transfer of technical progress is likely not to be compatible with the local customs and practices. Specifically, those who are in working age usually go to the forest, work on the field, even sleep at the hut for a few months without returning home, especially when in season. After harvested, many of Ca dong people enlist to participate in local employment or work away from home. Therefore, the participants in the training classes are mostly elderly people who are no longer able to work. It is not easy to acquire knowledge about science and technology in one or two sessions because these people often tend to preserve traditional elements. In addtition, the trainers are not locals so the language of communication is the national one which often less speak by the elderly. Therefore,

the transmission of the knowledge trained in each household is often not carried out or not effective. Not to mention, due to the merger of 3 old villages, the new Village No.6 area now is quite wide with a distance of 7 km which makes the commute from their home to the trainning places such as Village Cultural House and the commune People's Committee headquarters more challenging. Local authorities said that the number of people attending the training sessions is usually only about a quarter of the required number.

5. Discussion

Like most other ethnic minorities in our country, the Ca dong people has the agricultural residents' livelihood, taking staple food crops as the key and thorough livelihood activity. Through assessing the impact of agricultural production activities on the socio-economic life of the Ca dong people in the study area, it shows that livelihood is a focus of sustainable development. However, the unsustainability in livelihood activities, especially in agricultural production, has had significant impacts on all aspect of ethnic life such as social stability, cultural preservation, and environmental preservation, and so on, specifically:

- *Impacts on poverty and food security*. Ineffective agricultural production is the main reason leading to the high rate of poor households in Village No.6. In the old place, due to favorable natural conditions, most of the households had developed agricultural production in upland fields in the combination with wet rice fields cultivation and animal husbandry models. Food is always guaranteed, even many households have surplus. Many Ca Dong people in Hamlet 6 still have a nostalgic mind about the bumper crop seasons and developed animal husbandary when they were in their old village. Currently, total food production after harvested is only enough 3-to-4-month use, so in the remaining time of the year, in order to be able to cover the expense, especially buying rice from agencies, they mostly depend on their income from hired labor activities. Livestock also declined due to limited food sources and grazing areas and hotter drier climate compared to the old places. According to the commune's poor household review results in 2019, the village has a high poverty rate with 60.8%. The situation of returning to the old place to cultivate or selling houses in the resettlement area to find places with favorable production conditions has been going on in Village No.6 in recent years.

- *Impact on cultural preservation and social stability*. When agricultural production activities do not ensure food security, in Village No.6, many households have to find new livelihoods through non-agricultural activities, especially hired labor activities and working away from home. According to the village leaders, there are more than 40 village workers are working in the centers and big cities as industrial workers, construction workers, salesmen, etc. This is increasingly popular and has become the main source of livelihood for many newly separated young couples. Giving up argiculture activities to work in other fields in other places but still coming back home (Ly nông bất ly hương) was originally the desire of rural and mountainous people, but because of food security, they were forced to leave their families and communities to find new livelihoods. From the agricultural population, they have gone through a difficult process of adapting to completely unfamiliar working environments. The undesirable consequences have clearly shown, such as the fading of traditional cultural identity, the reception of inappropriate cultural factors leading to the hybrid, pragmatic lifestyle of a small number of the mobile workforce. It was also contribute to a loose relationship between family, clan, and community since young couples have to working in big cities and only visited thier family and their children a couple of times of a year, even some of them entrusted their children to grandparents or siblings to take care of. The relationship between husband and wife tends to lack the bond when one of them regularly works away from home. Moreover, some common activities of the community and the lineages have become more and more simple and coherent due to the limited contributions of working-age subjects. A number of social evils such as gambling, adultery also followed the migrant workers to this remoted area.

- *Impact on environment and natural resources*. Due to the lack of coordination between the Hydropower Project 3 Management Board, Tranh River Protection Forest Management Board and local authorities, many Ca Dong households have been resettled right in the protection forest, a steep slope area. As a result, a small number of these families, because of lacking productive land and jobless, had to cut down trees and cultivate, causing the worst of deforestation to Tranh River protection forest. Then, the storm No. 12 swept through the central coast of the country and the flooding from the Tranh River 2 hydrpower at the end of 2017 made Tra Bui commune an "oasis" and more than 6,500 people here completely isolated for a long time (Hai, 2017). The fact also shows that, for immediate economic benefits, acacia has quickly been expanded in many central provinces, including Tra Bui commune, but the negative consequences are clearly revealed. By way of illustration, after planting acacia, the soil was faded, hard and dry, its structure is broken, leading to the difficulty

of growing other plants. Normally, 1-to-3-year-old acacia absorb water very badly. From the 5th year onwards, acacia will excrete water to the environment, but at this time, people have already cut off the acacia for sale. leading to exhausted groundwater and environmental pollution. The problem of water shortage for domestic use and production in Tra Bui Commune has become more and more serious and cannot be related to the acreage of acacia plant mass increasing over the past decade. The replacement of this commercial tree might also make the positive values of indigenous knowledge preserved by Ca dong's generations to are no longer able to survive. These are knowledge and practices of protecting water resources, choosing arable land, crop varieties and farming techniques, and so forth which demonstrate the cohesion as well as the respect for nature and the surrounding environment.

6. Conclusion

Living in the difficult conditions of natural capital after resettlement, Ca dong people in Village No.6th have both preserved and promoted the positive values of indigenous knowledge, and initially applied scientific and technical advances in agricultural production. However, due to the lack of awareness and capitals, a large number of Ca dong people have applied outdated traditional farming practices, and have little access to scientific and technical advances. Besides, restrictions on natural capital and human capital make agricultural production no longer a major source of livelihood. To ensure food security, people not only started to work as hired laborers and work far away from home but also destroy forests for farming; thereby these activities result in negative impact on a many aspects of ethnic life.

The immediate solution is to focus on effective propaganda to help farmers dare to think, dare to do, change backward production thinking into commodity agricultural production thinking, invest in scientific and technological application. However, it should be noted that not all of the "advanced production models" implemented are "more advanced" than traditional farming practices. The story of changing crop structure, from staple food crops and cash crops to commodity acacia, which has been implemented for nearly a decade in this locality is a proof for that. Therefore, the deployment of new production models requires careful research, with both inheriting and selecting the positive values of indigenous knowledge. This may contribute to ensuring the biodiversity that locals have preserved for generations. That is "cultural capital" - a soft resource extremely important in sustainable development of rural and mountainous areas in our country in the current time. In addition, the difficulties in agricultural production as analyzed indicate the need to continue implementing the post-resettlement policy to overcome the shortage of productive land and lack of jobs for local at present. From the local reality situation, one of the important solutions is that the State should take measures to support people to reduce pressure on upland fields, possibly through the intensive development of wet rice and animal husbandry.

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SẢN XUẤT NÔNG NGHIỆP CỦA NGƯỜI CA DONG Ở VÙNG TÁI ĐỊNH CƯ THỦY ĐIỆN SÔNG TRANH 2: THỰC TRẠNG VÀ NHỮNG YẾU TỐ TÁC ĐỘNG

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Tóm tắt

Ở nước ta, việc xây dựng các công trình thủy điện đã góp phần quan trọng trong sự nghiệp công nghiệp hóa, hiện đại hóa đất nước. Nơi các công trình thủy điện được xây dựng đa phần là địa bàn cư trú của các dân tộc thiểu số - những cộng đồng chủ yếu dựa trên một nguồn lực rất quan trọng trong đảm bảo sinh kế, đó là đất đai. Trong bối cảnh thiếu đất sản xuất phổ biến ở các địa bàn tái định cư, định hướng cho sản xuất nông nghiệp là phát huy tri thức địa phương kết hợp với tăng cường ứng dụng khoa học kỹ thuật; chuyển đổi từ tập quán sản xuất manh mún, nhỏ lẻ sang sản xuất hàng hóa quy mô lớn. Tuy nhiên, kết quả nghiên cứu ở này cho thấy, không ít những trở ngại trong quá trình chuyển đổi đang được đặt ra như sự hạn chế về nguồn lực tự nhiên, tư duy sản xuất truyền thống hay tính phù hợp, hiệu quả của các mô hình ứng dụng khoa học - kỹ thuật. Khi sản xuất nông nghiệp không đảm bảo an ninh lương thực thì một số hệ lụy tới đời sống người dân đang ngày càng bộc lộ rõ như vấn đề nghèo đói, giữ gìn bản sắc văn hóa, quan hệ xã hội và bảo vệ tài nguyên thiên nhiên. Từ đó, đặt ra vai trò của Nhà nước trong việc nghiên cứu, xây dựng các mô hình sản xuất nông nghiệp phù hợp nhằm khai thác thế mạnh của địa phương và đảm bảo tính bền vững.

Từ khóa

Sản xuất nông nghiệp; Người Ca dong; Vùng tái định cư thủy điện Sông Tranh 2; Xã Trà Bui, huyện Bắc Trà My, tỉnh Quảng Nam.