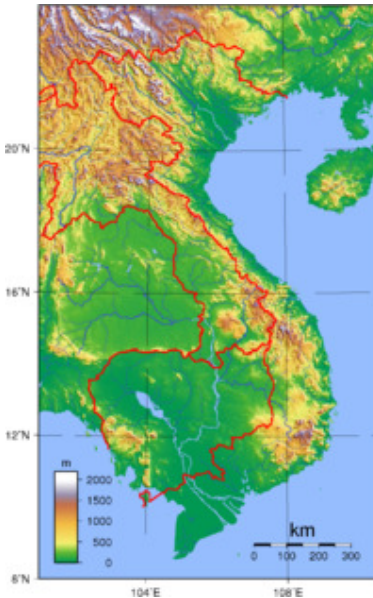


Rotational Farming in Vietnam

1. Definition of Rotational Farming

A common agricultural system practiced by the indigenous people in South Asia in which forest are slashed and burnt down for growing crops, then abandoned once the land becomes inadequate for crop production (slash and burn-farming-abandonment process). The process is periodically repeated when the soil regains its fertility through natural vegetation.

2. Background



Vietnam is a multi-ethnic country (with 54 ethnic groups) on the Indochina Peninsula. It has total land area of approximately 317,000km² and the population of over 86 million, of which 13% is the minorities living mostly in the mountainous regions. Vietnam lies within the tropical climate zone and its topography consists of alluvium flat land, hills, mountains and plateaus. About 30% of Vietnam is covered by forest; and less than 20% of its area is suitable for agriculture. The northern part of the country consists of highlands and the Red river delta, while the south is divided into Truong Son peaks, Tay Nguyen plateaus, coastal lowlands in the Central and the Mekong river delta.

Vietnamese ethnic groups can be divided into 2 main categories:

- Those that originate from the south of China, living mostly in the northern part of the country (from Ha Tinh northward),
- The native living mostly from Quang Binh southward, especially in the central highlands.

3. Rotational Farming and Indigenous Knowledge in Vietnam

3.1 The Ethnic Groups Practicing Rotational Farming

According to preliminary statistics, Vietnam has approximately 3 million of ethnic minorities living mostly in the mountainous areas; the area of swidden is about 3 million to 3.5 million hectares. In the north, the Hmong people, living in the mountains that are at least 500m high, are among those that practise RF most, next are the Dao, Thai, Tay, Nung and Muong groups.

In the centre (from Thanh Hoa to Binh Thuan), the Hmong, Dao and Thai people are still positioned at the top of the RF table in Thanh Hoa and Nghe An provinces; in the rest of the region, the top positions belong to Van Kieu, Sedang, H're, Co Ho and Khmu. Gia Rai, Rhade, Bhanar, Sedang, Gie Trieng and Co Ho is those practising RF most in the Central plains and Southeast provinces.

3.2 Rotational Farming

RF in Vietnam can be categorized according to its rotation period as below:

- ❖ **Progressive RF (forest fallow):** land is extensively used to cultivate crops until the soil is exhausted. Farmers then migrate to another area, leaving the land fallow for a long time, sometimes for a few decades or even longer. Abandoned land can recover full fertility by this method and the ecological structure of the forest is almost fully protected. This type of swidden farming in Vietnam, however, is approaching its end due to the pressure from fast growth in population as well as the government's policies in land management.
- ❖ **Cyclical RF (bush fallow):** by this method, farming and fallow phases are periodical and last for over 10 years, sufficiently to allow for nearly fully recovery of the soil's fertility. Production of the next farming cycle, however, is about 10-15% lower than that of the previous. At the present, this is a common type of shifting cultivation in Vietnam; still it will not last for long given the current pace of population growth. The best crops at the beginning years of these two types of cultivation yield only about 1/5-1/3 compared to sustainable farming on alluvium flat land.
- ❖ **Sustainable RF:** the fallow period under this method is not predetermined. Land is only abandoned when it is so exhausted that forced to shift elsewhere. This type of cultivation is currently very common in Vietnam as the available forests for swiddening are limited; also the government's land management policies are tightening.

3.3. Forms of swidden

- ❖ **Swidden together with dwelling relocation:** this type is previously very common among the Hmong and Dao people in the north as well as the native minorities in Tay Nguyen (central plateau). Relocating the village together with the swidden is a very important matter that needs the whole community's discussion and agreement; also the spiritual formalities such as the leaving and resettling ceremonies must be strictly followed.
- ❖ **Swiddening without dwelling relocation du:** New swidden must be within the areas chosen by the community. These areas must meet the requirements on land quality, water resource as well as comply with other unwritten rules such as not to be in tabooed or sacred regions, regions where water source is to be protected, or where there are precious natural resources.
- ❖ **Stable swiddens and dwelling:** crops are cultivated yearly on the same swiddens previously cleared. In the past, old growth or good quality second growth forests were chosen for swiddening. Old growth forests nowadays, however, are not much left and mostly are in conservation zone or national parks, thus are quite highly protected. Even good quality second growth forests are rather rare today. Only poor quality second growth forests or restored forests are available for swiddening; productivity of the crops hence is low and the durations of farming periods are short. Swiddening is carried out at different times of the year depending on the local climate – slashing and burning of trees and plants during the dry season and sowing at the start of the rain season (in the south) or the spring (in the north). Each year, there is only one crop. Swidden is the only source to produce major products for daily demand of local community such as eating, clothing, curing,

spiritual practice etc. and the surplus is sold to the market and thus local living standard is low. Production ways is rough with making hole and hoeing for field preparation, except for Northern Hmong people, who use civet instead. Seeding (rice, maize, millet, cassava ...), weeding, harvesting is done by hand. Manure is avoided because they are afraid that Land Deity would leave the area. Therefore production rate is low. When new field is cultivated and the soil is fertile, several rice crops can be grown. Otherwise only one rice crop can be grown and after that a corn crop can be replaced (which also lasts for one to two crops). This can be followed by several cassava crops until the soil lacks of nutrition and is left in big areas. Such areas are featured by secondary drought-bearing plant field, bush savanna, or grass land in North West, West Highland, and the South Middle Regions of Vietnam. Hmong people at Hang Kia, Paco at Hoa Binh, Hmong and Dao people at Khuoi Ken, Bo Peng (Ha Giang) for the last tens of years are living on land areas discovered by Tay and Thai people. They don't have anymore land for rotational farming.

3.4 Farming calendar and customs related to RF

1) Farming calendar of the Gia Rai

Month	Major activities		
	Gia-rai language		Gia-rai language
January	Bolan sa	Tree cutting	Bor yan chah krom
February	Bolan doa	Tree cutting and clear	yan chah krom
March	Bolan khau	Burn	
April	Bolan pa	Rice transplant	Yan juk,jay
May	Bolan roma	Weeding	Yan buich rok
June	Bolan nam	Weeding	
July	Bolan juh	Bird waving-off	Yan vainha daidro
August	Bolan pan	Early rice harvest	Yan roch daidro
September	Bolan doa ro pan	Rice harvest	Yan roch dir
October	Bolan pluh	Rice harvest	
November	Bolan	Agricultural idle	Yang ninh n ong
December	Bolan	Agricultural idle	

2) Farming calendar of the Ba Na at Kbang, Gia Lai*

Month		Weather	Major activities
Local language	Solar calendar		
Khei moi	4	Sunny, no rain	Farm burning ceremony, clear, farm burning, green bean and corn harvesting
Khêi bar	5	Light rain, warm soil	Ceremony to ancestor before seeding, prepare for seeding of corn and rice. Harvest wet rice
Khêi peng	6	Hot, less rain	Ceremony to God, to tiger and clear grass for bean field
Khêi puôn	7	Hot, less rain	Ceremony to Mountain God. Clear grass for rice field. Harvest bean and corn
Khêi podăm	8	Rational rain	Clear grass for rice field. Harvest corn
Khêi drâu	9	A lot of rain	Clear grass for rice field
Khêi topơ	10	A lot of rain	Take care of rice field
Khêi tongan	11	Less rain an f	Hunting, harvest non-timber products

		cool	
Khêi tơ sinh	12	Rough and cool	Harvest rice. Ceremony to new rice
Khêi mochit	1	Rough and cool	Festivals
Khêi chut minh	2	Warm and sun	Festival Giving up tomb. Chose new plot for field
Khêi chut ba	3	Warm and sun	Ceremony for water port. Clear the rice field

3) *Farming calendar of the Hmong and Dao people at Mai Chau, Hoa Binh*

Month	Activity	Traditional custom	
		Hmong	Dao
1	Production idle	Traditional Tet holiday (start from end of November, Lunar Calendar), Wedding	Choose new farming field, choose land and fortune telling
2	Production idle	Wedding, find new farming field (avoidance custom similar to Dao people but simpler worship)	Lunar Tet, celebrities
3	Clearing, cutting plant, preparation of land	Husband to cut plant or to hoe while the wife is to clear the place. Worship to start the field for a good harvest (worship stuffs is only paper and incense)	Husband to cut plant and wife to clear. Husband to worship for a good harvest (worship stuffs are different depending on the family)
4	Transplanting (rice, corn, or beans)	Husband and wife to transplant	Husband to hole, wife to transplant
5	Weeding	Both husband and wife or only the wife	Both husband and wife or only the wife
6	Taking care of the field	Husband or wife but commonly only husband	Husband or wife but commonly only husband
7	Harvesting and corn transplanting	Both husband and wife, worship for new crop, transplant corn for autumn-winter season (secondary season)	Both husband and wife worship for new crop, transplant corn for autumn-winter season (secondary season)
8	Harvesting and corn transplanting for winter season	Both husband and wife, worship for new crop	Both husband and wife, worship for new crop
9	Gathering forest products, hunting for wild animals	Husband to hunt and gather forest products, wife to do house work	Husband to hunt, both husband and wife to gather forest products
10	Gathering forest products, hunting for wild animals	Husband to hunt and gather forest products, wife to do house work	Husband to hunt, both husband and wife to gather forest products
11	Harvesting for winter season, Gathering forest products, Hunting wild animals	Husband to hunt and gather forest products, wife to do house work	Husband to hunt, both husband and wife to gather forest products
12	Production idle	Whole family, worship ancestor, and deity (including production tools)	Husband to hunt, husband and wife to gather forest products, preparation for Tet

			- Lunar new year festival
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Source: CSDM

3.5 Major plant and animal related to slop land cultivating system

In general, there is little difference in plant and animals species among different groups and regions, but there is a big difference among types of soil and the condition to form the land. Based on the usage value, the classification can be as followed:

- Major plants include: Rice, corn, cassava, beans, taro, canna, arrowroot, white radish, etc
- ❖ Vegetables include: cabbage, egg-plant, tomato, pumpkin, chayote, beans etc
- ❖ Spices (some can be used as medicine) include: ginger, saffron, pepper, chili, onion, garlic,
- ❖ Plant for fiber include: cotton, “lanh”, pandanus
- ❖ Plant for dyeing: Indigo plant, gardenia, ramie leaf
- ❖ Plant for excitement feeling: tea, tobacco, opium (opium were planted mainly by Hmong people)
- ❖ Fruit includes: Banana, papaya, orange, pineapple, lemon, finger citron, plum
- ❖ Animals fed in house include: Buffalo, cow, goat, pig, dog, cat, and poultries. Horse is only raised in some specific tribes, especially Hmong

It should be noted that plant and animals mentioned above are local breeds which are adaptive to severe environmental conditions such as drought, lack of nutrition, disease, etc but the quality is acceptable and they are easy to grow. Such features are suitable for traditional cultivating custom. These are precious gene source, which needs special consideration in cross-breeding research.

In a long period, many local breed is replaced by alien breeds or from plain area, especially provisional plants such as rice, corn, or castle and poultry. White and yellow corns are replaced by Bioseed, 999, LVN10, DK9698; “Rau” rice, “Pe lenh” rice, and black or white cover sticky rice are replaced by those with high production. Local castle and poultry are replaced by high production breed such as “Tam hoang” chicken, “xiem lai” duck, Mura buffalo, Sin cow etc.

During investigations at Pa co, Hang kia (Hmong), Nhung, Phuc San (Dao), at Mai Chau district, Hoa Binh province, Kep A, Khuoi Ken and Bo Peng at Bac Me district, Ha Giang province, the research team found that the trend is to preserve local breed, especially those related to local customs during Tet holiday. Hmong people mainly use white, yellow, or flower sticky rice to make “banh chung”, and “rau”, white and yellow rice for worship dishes. It is noted that the market more and more prefer wild products with high quality than highbred one. This demand of market contributes to recover and develop local product and consequence its genes.

3.6 Customs of DaoTiền people at Mai châu, Hoà bình province

3.6.1 Choose new farming field

1) Method 1: Prepare a roll of bamboo strings, choose arbitrarily at two ends, pray and tie the two ends, when unrolled, if it is not jammed, it would be a good sign, otherwise, it would be a bad sign and the field is bypassed.

2) Method 2: Take an amomum tree with an arm length, clear the field and pull the tree at the same time until finish clearing the field. Then the tree is measured again, if the length is increased, the field is promising with good harvest, and otherwise it would give less harvest.

3) Method 3: Use a tree and chop into short segment, name each segment by according to type of plant such as rice, corn, cassava ... then count until the last segment. The name of the last segment is believed to be the name of a plant that gives a successful crop.

4) Worshipping ritual to choose new land for farming field for Dao Tien people at Suoi Nhung

I take this land for me to survive

I tie this knot so it will not drop

With a drop, I will not have things to eat

With no drop, I will have something to eat

5) Things to be followed when clearing the field

- Not to cut plant grown near big stones, big tree trunks, banyan figs, because when people is ill, worship is performed at these places to keep devils.

- When farming, usually people bring rice over the field, so before eating must give the worship to invite land deity to have meal together

- Before farming, bring together chicken, paper money and gold over to worship deity near the streamline

- If rice plants turn from green to waning, invite sorcerer. If he announces that the phenomenon is due to water devils, a worship session is carried out with a chicken, some wine, fake money and gold. One week later rice plants will return to be green.

- Worship new rice harvest (09 of September, lunar calendar): when rice plant start blooming, gather 3 blooms to worship with Chinese pea, fish or bee pupa (it was believed that Chinese pea has a lot of seeds, fish has a lot of eggs, and thus rice plants may give a lot of seeds). The worship is arranged as followed: rice cooking, set 4 bowls on to the Altar, set 3 blooms on top, one fish or Chinese pea, or bee pupa is at the middle, then burn incense

- No custom to abandon the farm, if there were something not good, a sorcerer is sought after to watch over and to deliver from misfortune

- Beginning or mid of the lunar month, avoid cutting tree or collecting vegetables.

3.6.2 Farm cultivation

After the first rice or corn harvesting, “Moc” tree is inter-planted. When this tree is mature after 5-6 years and becomes forest, which means rice and corn production is reduced, amomum is transplanted (for medicine purpose). Soil is free from cultivation for a cycle of 10-12 years. During this period, “Moc” fiber and amomum fruit is gathered until the next cycle.

Utilising similar approach, cinnamon tree (to collect skin), or snowbell (to collect benzoic and wood), or “xoan” (for wood) is inter-planted with rice, or corn

This is a sustainable way to use soil (agriculture-forest combination-similar to Burmese Taungya)

In Northern Vietnam (inclusive of Thanh Hoa, and Nghe An) some other tribes such as Thai, Muong, and Tay also apply similar approach in places with suitable condition, but it is not as popular as with Dao people. In other places, almost after cultivating provisional plants, it is a period of non-cultivation for 10 to 15 years. Near several places like Tay Nguyen, people grow “Boi Loi” (for skin and wood) in 1-2 years before stopping food production as alternate cultivation.

Castle are kept in forest or wild area after the field is abandoned.

3.6.3 Gender in production and living activities

In Nhung village, Dao females are previously obey their fathers when at home and when they get married they obey their husband with low social status. In farming, they handle works like clearing, burning, sowing, weeding, and harvesting together with livestock breeding (and of course housework for the whole family). Today, their social status has changed and they can have their say in the society as well as in the family. However, in addition to the traditional tasks mentioned above, Dao females nowadays also assume works for males only in the past such as plant slashing, ploughing, or even timber and bamboo logging in the forest.

3.7 Consequences

In general, there has not been a project that fully addresses the consequences of RF in Vietnam. This report attempts several comments on the topic as follow:

- ❖ ***Social and Economic Consequences:*** over thousands of years, RF together with the existence and evolution of Vietnamese ethnic minorities, has taken part in forming a rich and colorful community culture that nurtures, preserves and develop historical heroic poems of Tay Nguyen, customs for living, production, and fights against nature. On the other hand, a close community is maintained with self-supply economy of low level.
- ❖ ***Environmental consequences and biological diversity*** When forest area is large enough and population density is low, nomadic farming at certain level will not only not destroy forest resource but also create the diversity of animal and plant system of Vietnamese forests (Forest will always be in dynamic balance, accelerating the splitting process). In addition, various plants and animals with pure gene are reserved for future use. However, when the population is increased significantly (from 25 million in 1945 to 85 million after 60 years), mechanical population increase creates pressure on various regions in Vietnam. Nomadic farming in such circumstances would create negative consequences in terms of social management and environment. Forest resources including soil are degenerated seriously in quantity and quality.

4- Land management and settled agriculture policy by Vietnamese government

4.1 Land management

According to Constitution and Land Law of the Social Republic of Vietnam, land is owned by whole people and managed by the government. People and other elements of society are transferred the right of long-term use (including rights to inherit, to deposit, or to transfer). However, to manage land and natural resources, there are three basic laws including land Law, Natural Resource Law, and Forest Protection and Development Law and other regulations by the government such as Decree 135/2005/NĐCP on “Transfer of agricultural land, forest land, and water surface for raising fishery in national farms and national forests”, Decree 181/2004/NĐCP on “Processing of Land Law in 2004”, Decisions 202/QĐTTg, 178/2004/QĐTTg, 186/2006/QĐTTg on “Transfer of forest protection”, and “Right to share profit and responsibility of household, individual to rent forest or forestry lands”.

The above Laws and Decrees with the implementation of programs such as “Reducing hunger, poverty, Settling Cultivation, Managing and Protecting forest, growing 5 million ha forest, transfer forestry land etc, allowing people to use forestry land and benefit from natural forest (with specific quota), investing in opening roads, schools, medical centres, housing, reclaiming farm, water-resource benefit (Program 134, 135) contributes to develop production, living standards of mountainous ethnic minorities, protecting forest resources. However, the results are still limited, especially with small troupes in far mountainous areas. In such locations, customs are not easy to be changed, there is a lack of plain land and water resource to develop rice farm. Transportation is not convenient. It is difficult to obtain credit

service, agricultural support, material supply, and product consumption etc. In such poor conditions together with the traditional belief that “Land (forest, mountain, streamline etc) belongs to the God, “Giang”, and people have right to farm for survival” cultivation is still out of hand of the local government.

Current programs to reduce hunger and poverty, programs for sustainable forest management etc by Vietnam government and international organizations support mountainous farmer to turn from traditional cultivation to sustainable cultivation on slopes and let farmers to be familiar with techniques such as

- Inter-transplant beans and provisional plants
- Combining agriculture and forestry (Taungya)
- Cultivation on boundary
- Leave land fallow such as grow trees for wood, grow beans to improve soil
- Sustainable cultivation on SALT slope or RVAC-forest-garden or provisional plants-fishery pond-castle/ poultry
- Interchange plant/ animals system to fit local conditions
- Apply several of the above

4.2 Program for settling cultivation and living from 1968 to 2002

To resolve mobile cultivation and living, the government has carried out a series of settling cultivation projects to stabilize people’s lives, increase production, income, and satisfy current needs especially food, and improve servicing conditions step by step such as health care, education, communication etc.

Below is evaluation about settling cultivation and living by Ethnic Policy Department, Ethnic Committee

From 1968 to 1990, the Government has invested VND 14.644 million for settling farming and living. According to evaluation of Settling Cultivation and Living Office – Ministry of Agriculture and Rural Development, the settling of cultivation and living is carried out at regions which is convenient for transportation while places with high topology have not been sufficiently supported and thus there are differences in various regions and tribes. The land conflict appears strongly in the beginning of the 90s due to the change in management policy. That several tribes do not have farming land leads to nomadic farming and free emigrant.

From 1996 to 2002, on the area of 40 provinces, 200 projects are carried out and settle 90 thousand households with total investment of VND 480 billion from government and local funds. The result is to reclaim 7.760 ha of farm land, renew 39 rural roads (752 km long), 100 bridges or culverts, 40 canals with 310.8 km of soil works, 106 pumping station and small size water dam, 20 water supply systems, and 823 wells, construction of 104 schools and medical centres, 8 low-voltage electrical stations. This investment helps 50 thousand households to stabilize their lives and approaching social services. Since 1991, there have been 557 thousand households with 3.142 inhabitants to stabilize production and living.

After 40 years to carry out Settling Cultivation and Living, there have been sufficient achievements in creating and improving production & service infrastructure such as transportation, water resources, household water, accommodation, medical centre, schools etc. Knowledge and awareness of people has increased sufficiently due to approaching new production method, and interaction with Kinh culture and other races. This government policy has partly resolves the mountainous nomadic lives, stabilizing socio-economic status; improve race coherence, and maintaining national security and defense for the area.

❖ *Difficulties and challenges of Settling Cultivation and Living*

- 40-year settling cultivation and living does not produce the expected results though the duration is sufficiently long. There are improvements in certain areas but the rate of poverty is still high and there are places to be considered poverty to the core. Socio-economic status is low in comparison with country average standard. Currently, the population under support is high with 267 000 households of 1.541 000 inhabitants settled in living but they still carry out nomadic farming; 15 000 households of 84 000 inhabitants who continue nomadic living and farming; 20 000 household who freely move to live in special forests, and protective forests and need to be reallocated. 270 000 households are to be supported with production land, accommodation, living water etc. In most villages, which are assumed to settle cultivation and living, there are 15-20% inhabitants who may return to nomadic lives due to lack of production land, production water, and household water.
- One reason is that the psychology of the community cannot be changed in one or two days. On the other hand, the population under propaganda is big and spreads in large area which is difficult to access. This requires huge investment in terms of manpower and properties.
- Another reason is that there is lack of investigation of local custom during the settling cultivation process. The involvement of people in the re-construction of lives is limited due to language and culture barrier. Most of the time they lack of activeness and adaptively. Most projects for settling cultivation and living are built of standard formats and focus mainly on infrastructure items, water resources, field opening etc. The planning of such projects is carried out at district level and thus the investigation and evaluation of demand at local villages are shallow and lack of professionalism.
- Living settlement has not been attached to cultivation settlement. The carriage shows weakness in planning and the use of land is not suitable for cultivation custom and the local expectation. Therefore, there is a risk of cultivation land to be sold, exchanged, and planning of forest-agricultural farms may break the community cultivation land resource. In several places, construction and development are not uniformly developed which leads to inefficiency. The agriculture and forestry encouragement has not effectively supports and organizes production, product consumption for people and thus the result is not satisfactory.
- The inadequacy is also shown in limited investment in settling cultivation and living, meaning mainly supportive while the actual needs is to be stronger. In 13 years (from 1990 to 2002), the average investment on settling cultivation and living is about VND 4 million/ household, inclusive of investing on infrastructure and production development.
- The management process is not sufficiently close. The observation system, the statistical analysis lacks of scientific basis. Even the reported number on nomadic cultivation and living in local areas is not reliable.

4.3 Continuity of settling cultivation and living in Vietnam in the coming years

4.3.1 Strategy to carry out settling cultivation and living

To fundamentally resolve the nomadic cultivation and living in country scale in 2010, stabilize ethnic lives, and improve socio-economy, settling cultivation and living needs to be based on accurate prioritized objects to perform solutions and steps suitable for each areas, or ethnic groups. This can be done with detailed research on custom, cultural features, and tendency of development of such groups.

- Focus on important areas such as those with nomadic farming and living, those exposed to natural disaster, border areas or areas which are sensitive to social security
- Settlement of cultivation and living is carried out uniformly. In the first place, infrastructure and service for production are enhanced. Rice cultivation is developed and traditional cultivation is sufficiently exploited. Food security is resolved before activities to increase income on basis of interchanging plant and animal structure.
- Settlement of cultivation and living is to be carried out in all aspects including economy, politics, culture, social issues to create positive change in various aspects of life. This will be the basis for individual and community involvement in investigation activities, planning, and implementation.
- Settlement of cultivation and living should attached to forest protection, soil, water and other natural resources, environment protection, attach people benefit to resource protection. Food supply is maintained at balance level with forest protection, and thus they can survive based on forest rather than expanding the other food productions.
- Settlement of cultivation and living should attach to the improvement of policy, and management system from central bureau to local government; upgrading the checking and supervision, communication. Reports are up to date and truly reflect actual situation. Treatment policy for people promoting settlement in cultivation, alleviate hunger and poverty must be improved together with increasing requirement on professional quality.
- Checking objects and needs of settlement of cultivation and living, adjust planning to re-organize people and land planning, and planning for development in production and socio-economy.
- Guarantee to deliver sufficient land, forest for production to household and community, improving house condition and supply sufficient utility water. Invest in production enhancement, focus on enhanced cultivation, increase area, transplant provisional and short-term plants to ensure food supply including the use of new breeds. Improve breeding farm together with agricultural encouragement and vet.
- Invest in essential infrastructure such as roads, schools, medical centres, community housing etc. Support poor households by subsidizing living, production without interest. Continue to enhance education, increase community capacity, and reinforce village management
- In terms of policy, to implement policy on living subsidiary, credit lending, official training, manpower education for those who needs settlement of cultivation and living.
- Accelerate land and forest transference to household and community to ensure survival from forestry together with government support in terms of food and other production materials.

4.3.2 Policies for Settlement of Cultivation and Living

4.3.2.1 PM decision on emigrant policy to settle cultivation and living for ethnic minority in period of 2007-2010

a) General target

Policy to support emigrant with settlement of cultivation and living for ethnic minority to provide sufficient accommodation and condition to produce, and increase standard of living, abandon hunger and poverty, contribute to protect forest, preserve environment, maintain political security, social security in each area.

b) Specific target

Targets to 2010:

- Complete settlement of cultivation and living for ethnics in country scale;
- In 70% of settlement villages, there are sufficient infrastructure, which fits in general planning and includes: roads, electrical lines, water resource management, schools, kindergarten, community house, etc;
- 100% of households are settled with cultivation and living in accordance with planning, with accommodation, production land, utility water in which 70% has electricity and hygienic water;
- At places of settlement of cultivation and living, there would be no hunger, 2-3% increase of poor households annually (according to poverty standard, defined in Decision No. 170/2005/QĐ-TTg, 08 July, 2005 by PM).

4.3.2.2 The 135 program

According to the research and valuation reports, the first phase of the 135 program (1998-2005) is the most successful poverty-reduction program in Vietnam. One of the criteria to assess and acknowledge the villages in the 135 program that have achieved the objectives of the 135/1998/QĐ-TTg decision dated 31/7/1998 of the Prime Minister is:

- Regarding the infrastructure: the essential infrastructures for production and life of the minorities should be in place, such as the transport system, water irrigation system, national power grid or other electricity supply sources, primary and secondary schools, medical centres with sufficient machines and equipments for medical examination and treatment, and provision of basic healthcare services, water supply for domestic uses and open markets;
- Social aspects: primary education and anti-illiteracy have been made compulsory, medical centres at the villages have carried out preventive measures of epidemy and examination and treatment of common diseases, radio and television coverage have been in place, also there should be a post office in the village;
- Agricultural activities: more than 80% of the families that live on farming have sufficient agricultural land as per local standard; over 90% of the registered households practice settled cultivation and living, also not cutting and destroying forests for farming.
- Living standards: the percentage of poor families in the village should be below 20%; there should be no more chronic starvation; over 90% of the households have sufficient land according to the 134/2004/QĐ-TTg Decision; less than 10% of the households have no accommodation or are living in temporary lodging; over 70% of the households have sufficient supply of domestic water; and over 50% of the households use electricity.

4.3.2.2 Forest protection and development policy

Rule no.21 defines the tasks of the People's Committee at the district level to carry out regional planning based on the forest development plans and guide the public to practice settled cultivation, frequent cultivation, continuous cultivation, livestock breeding and combined agricultural-forestry and aquaculture production.

4.3.3. Chairman of the Council of Ministers' decision on policies of using fallow land, bare hills, forests, coastal alluvial deposits and waterways

Rule no.4 says that the living-and-farming-settled villages are to be maintained, new settlement projects are to be carried out on the village-to-village scale, and the ethnic groups that are still practicing shifting cultivation are to be switched to doing settled cultivation, reforestation, industrial and agricultural plant farming, economic gardening or livestock breeding.

4.3.4 Other rules on forest management

Other rules on forest management only mention the protective measures, reforestation and utilization of permanent farming fields, and shifting fields and swidden cultivation has not mentioned.

5. Analysis of the Resettlement program in Vietnam

During the current years, Vietnam government has issued numerous policies aiming at encouraging the minorities in mountainous areas to permanently settle down. These policies have proven effective in transforming many aspects of the ethnic people's life, among those is the installation and improvement of the infrastructure system for manufacturing and services such as transportation, water resources, water supply, dwelling, medical centres and schools etc. Ethnic people's knowledge and education have been improved significantly as a result of the exposure to new farming practices and exchange information with the Kinh people as well as other ethnic groups. Nevertheless, it must be recognized that the DCDC results have not yet met the expectations due to reasons such as the community's consciousness, psychology and traditions are hard to change, the ethnic people's customs and habits are not well understood and their involvement in the resettlement process is still limited since the barriers in language and culture has resulted in them being passive and less adaptive.

In the next years, together with the 135 program and other poverty reduction programs for the minorities, DCDC objectives will be further reinforced. Although the ethnic groups in the remote areas would still continue shifting cultivation practice, this will be deemed as illegal by the law

6. Conclusion

RF is unchanged custom in Hmong and Dao and or all ethnic minority people due to their traditional culture

The investigation at Hang Kia and Pà Cò (Hòa Bình) is at the Tet holiday of Hmong people. We were offered to try "banh day" which is made from black sticky rice and "pe lenh". Dao rice was cooked by "rau" rice and white rice. Black pig and chicken are food for Tet holiday and used to treat distinguished guests. Interviews of Hmong and Dao people show that local people will forever to maintain their cultural values. One of unchangeable customs is to worship deities and ancestors during Tet holiday. Worshipping requires the use of rice, sticky rice, chicken, and pig raised by traditional methods to produce pure natural products. Such types of rice and animals are raised by traditional methods e.g. in new farm without manure. The existence of rice such as "rau" rice, "pe lenh", and black sticky rice shows that Hmong

and Dao people grow rice not only for worshipping but also for their own consumption and thus to preserve rare genes. Result of interviews, meeting with people and observations shows the fact that despite of all effort and measure from government to ban; *Rotational farming is unchangeable for ethnic minority people in Vietnam.*