Roadmap for Development of World Heritage Region of Preah Vihear in Cambodia

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The development of Preah Vihear and its region depends on many factors from natural resources preservation to human resources. To move into the right direction of enhancing economic growth and social improvement, it is indispensable to keep the first resources from draining out in order to insure their sustainability. In this paper, the authors deal with the development strategy for the sustainable development of this valuable region and discussed the abstract strategy for natural resources and human resources. Protection and management of natural resources including green and underground resources, water resource and land resource are discussed. At last, different touristic activities and program at different time frames are proposed with priority projects.

Key words: world heritage site, cultural value, sustainable development

1. INTRODUCTION

On the 7 of July, 2008 in Canada, Preah Vihear temple and its region shown in **Fig.1** was declared the World Heritage Sacred Site, and later on in 11 November 2013 the restatement of final judgment of the ICG court of Hague in June 15 1962, confirmed that Preah Vihear belongs to Cambodia.

This event has changed the course of the destiny of Preah Vihear temple. Cambodia started to pay attention to the temple. Some access roads and trails were built to give way to military and police establishment in order to mainly control the border from illegal traders. Many years later, after the fall of the Khmer Rouge's regime and the declaration of National Unity of Cambodia the historical temple revealed its cultural value and its economic potentials. These potentials were at the beginning understood in Thailand which at the benefice of its boom tourism industry extended the diversity of tourist's attraction to the Preah Vihear temple.

The authors discussed the past development trends and the present issues, considering the requirements for the consistent strategy. We also examined what the future sustainable development should be for this valuable heritage region. In that study, we suggested that rediscovery of the potential of Preah Vihear could lead the region up to better future, and concluded that concrete development activities should be done by sound



Fig.1 Preah Vihear Temple World Heritage site¹⁾

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strategy and long-term vision²⁾.

The authors also discussed the potentials of Preah Vihear, analyzing various values the region contains. At first, we discussed the historical heritage values from various viewpoints. After that, contemporary significance of regional culture was discussed. Then, we concluded that complex type tourism could make Preah Vihear explore these possibilities. By doing so, the region can play a role as the motor of the economic growth and social improvement for the future. After all, we confirmed that natural and human resources needed to go through recycling concept in order to achieve sustainable development³⁾.

The present article will deal with the development strategy for the sustainable development of this valuable region. At first, we will discuss the abstract strategy for natural resources and human resources. If these resources are properly managed, the population would have a reasonable standard of living and can enjoy the basic requirements of social welfare such as safety food net, access to medical care, and healthy life. Second, we will discuss protection management of natural resources including green and underground resources, water resource and land resource. Also we will emphasize the importance of improvement of agriculture since the province is mainly the province of agriculture. last, Scope of tourism strategy. Since tourism is the spearhead of development, it is expected that it would have great potential to generate revenue and different touristic activities and program at different time frames are proposed with priority projects.

2. INITIATION OF TOURISM ACTIVITY

Before the border dispute between Thailand and Cambodia, tourist's number was already increasing steadily, much more from Thai side than the Cambodian side. The reason is that Thailand had good access from its territory and disposed of experienced Thai travel agencies. In July 2007, Cambodia submitted the temple to the Committee of World Heritage for inscription. Because of political problem raised between the two countries, all visitors came to a complete stop. Since June 15, 2008, one week after the inscription of Preah Vihear into World Heritage list, the arm conflict occurred

between Thailand and Cambodia in Preach Vihear temple area.

The military invasion of Thailand into Cambodia territory with the political dispute between the two countries gave the opportunity to Cambodia to understand the cultural value and the economic potentials in terms of resources generator and in the first place the tourism development. Since then, many infrastructures and facilities for the visitors to the temple have been constructed and provided rapidly.

Thanks to these efforts which were still limited but sufficient for the moment, many tourists from major nations came to visit Preach Vihear despite tense atmosphere and military confrontations between Thai and Cambodian soldiers. Cambodian visitors having been motivated first by their pride of their national identity and second by the cultural value of their heritage had been coming massively to visit and paid tribute to the temple. The entire site became in a very short time a permanent place of pilgrimage of Cambodian population in the country including Buddhists monks and nuns. Along with the development of local tourism in the Preah Vihear temple, curiosity and the motivation to understand the historical site and the dispute between Thailand and Cambodia, foreign tourists started to visit the World Heritage site and this trend has been continuing day after day with more visits to the temple. It was the beginning of tourism activity.

Along with the tourist movement, many experts from UNESCO and from academic milieu have taken great interest for their studies, researches or cultural appreciation. At the same time, the Royal Government of Cambodia has mobilized its efforts to implement infrastructure projects and social support for the population in the region with important program of development.

Within a few years, even at a very difficult political situation between the two countries, massive flows of interest in the World Heritage site has been stimulated. At the same time, helped by mass media of the border dispute around the Preah Vihear site, foreign visitors of different categories of profession such as journalists, historians among others have added the visit to the temple as part of the itinerary in their holiday to Cambodia. The number of oversea tourists is growing faster thanks to the mass media. It is believed that people wish to

understand the reality of the political situation as well as the importance of Preah Vihear temple.

The observation and monitoring of the described phenomena that have been carried on since a couple of years ago did confirm that the World Heritage site of Preah Vihear has great potentials for the development. The immediate necessities such as hotels, guest houses, restaurants, souvenirs shops, transport system that directly support the momentum of the tourism development are required to be implemented so the benefit of these activities could overreach the poor rural population.

3. DEVELOPMENT STRATEGY

Looking at the global aspect of national wealth, Cambodia is a fairly rich country compared to many others in the world⁴⁾. Since Cambodia is basically an agricultural country, it has much advantage than its counterparts in terms of potentials of basic natural resource at disposal of its population. Compared to its neighbors, Cambodia has good natural resources population ratio. This indicator with an empiric value gives an idea of the capacity of development. **Table 1** shows land and forest-population ratio between four neighboring countries: Cambodia, Thailand, Vietnam and Laos. The main advantage of Cambodia is its small

population which is not a burden for the economy of the country. The resources are sufficient to avoid a high rate of rural poor and are able to provide reasonable living conditions to the population.

Compared to some isolated provinces, as shown in **Table 2**, Preah Vihear region has the edge in terms of valuable potentials but is somehow under developped, and poverty of rural population continues to be problematic.

If these resources are properly managed, the population would have a reasonable standard of living and can enjoy the basic requirements of social welfare such as safety food net, access to medical care, and healthy life. Therefore, new strategy should be found quickly and the approach of implementing the resources-cyclical and recycling concept seem to be the most feasible for the time being.

(1) Natural resources

Cambodia including Preah Vihear region in a global manner used to have important natural resources compared to its population. The lack of strategy and planning of how to proper manage these resources, the country natural wealth is depleting⁶.

The destruction of forest is now accelerating to the point that they could be drained out in the next decade if there is no adequate measures for their protection and conservation⁸⁾.

Country	Population	Cultivated land /population ratio	Natural forest cover / land area	Estimated natural forest cover /population
Country	millions	m2/inhabitant	%	% per million inhabitants
Cambodia	13.389	1931.36	52.4	1.54
Vietnam	90.3	700	24.9	24.9
Laos	6.5	2000	54.2	8.33
Thailand	67.2	2300	19.3	0.29

Table 1 Land and forest-population ratio between four neighboring countries⁴⁾⁻⁷⁾

Table 2 Ratio of wealth to the population of Preah Vihear and region 4)

	Populat ion	Cultivated land / population	Estimated		
Province			natural forest	Culture or nature as Capital asset	
			cover /population		
	*1000	ha/persons	ha/persons		
Preah Vihear	171	0.193	0.259	Historical archeological monument, mineral, forest	
Kompong Thom	631	0.273	0.081	Historical archeological monument, forest, fishery,	
Moadlukili	61	0.278	2.75	Mineral, forest, nature	

The forest is recyclable. It grows, it can be cut; the trees can be used to serve many purposes, when they die they can reborn by natural phenomena or they can be replanted to ensure their sustainability. Fauna and flora are also part of these resources that follow the same mechanism of recycling process.

Over exploitation to have a quick output without considering the capacity of resources to reproduce is a common practice but it leads to rapid depletion. Most natural elements follow this cyclical mechanism to ensure — its sustainability. So — equilibrium — between — exploitation — and reproduction of resources is vital for sustainable development.

(2) Human resource and capacity building

Cambodia has a main obstacle related to human resource and its capacity building of qualified work force. This obstacle has existed for decades since the French protectorate period up to the present time. Despite many development plans designed by international financial institutions such as the World Bank, the Asian Development Bank or the combined efforts from other international organizations like the Europian Union or the United Nations Development Programme, Cambodia is still crawling in its economy. Even the last economic development plan that the Cambodian government calls a "Triangular Strategy" prepared with assistance from international experts of different international agencies is far from reaching the important objectives. This proves that the main and crucial factor is the lack of human resource to carry on the implementation of the ideas set in the plan⁹⁾.

Some of the obstacles faced by this emerging economy are the need for a better education system and skilled workforce; particularly in the poverty-ridden countryside which is struggling with inadequate basic infrastructure²⁾. Insufficient human capacity⁹⁾ is due to the following factors:

- ➤ The holocaust and dissemination of intellectuals that existed before the arrival of the Khmer Rouge by utopic policy of Pol Pot and his regime,
- ➤ The lack of a long term vision of the successive governments after the Khmer Rouge reign,
- > Neglect of the importance of educational

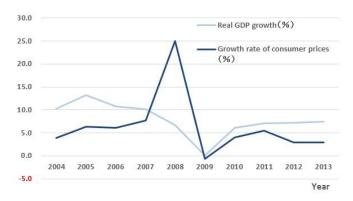


Fig. 2 Fluctuation and uncertainty of Cambodian economy in the future¹⁰⁾

systems needed for producing efficient professional activities,

- Education policy based on mediocrity of school graduates instead of professional quality having disadvantages on the employment market in the environment of high competition,
- Inadequate training program for skilled labors who have difficulty to find work,
- Educational program that does not respond to the new era of technology,
- ➤ Refuse of many educated people in different parts of the world to come back to the country because of difference political opinion.

The government has done much for the construction of schools in almost every corner of the country, but there are not sufficient number of qualified and devoted teachers to fill the classrooms. This situation can be observed in remote provinces like Preah Vihear, Mondulkiri, Banteay Meanchhey, etc. ⁴⁾.

In order to challenge the obstacles for the development of Cambodia as well as in the Preah Vihear region, it is crucial that the government looks into this matter with great attention. The development of human resource that leads to capacity building of qualified workforce should be on the agenda of priority actions in the policy of the national authority.

Long-term economic development remains a daunting challenge, inhabited by endemic corruption, limited educational opportunities, high income inequality, and poor job prospects. **Fig. 2** shows the fluctuation and the uncertainty of Cambodian economy in the future ¹⁰⁾.

To maintain sustainable performance of labor force as well as the white collar such as university

graduates, it is necessary to introduce the scheme of recycling of knowledge and professional periodical training so to acquire additional experiences and to be in line with new technology.

4. PROTECTION AND MANAGEMENT OF NATURAL RESOURCES

The following advices provide the key issues of each of the major components of the ecosystem to be protected according to order of priority that requires positive urgent actions.

(1) Protection of green and underground resources

The forest in and around the site of the World Heritage temple of Preah Vihear declared protection zones (Z_1,Z_2,Z_3) . In the immediate surroundings of the temple, which is called Z₁, the vegetation is limited to scattered trees and shrub and grassland. Dense big trees are still on the cliff of the mountain. In zones of Z_2 and Z_3 , many species of trees of good quality (Beng, Thnong, Kranyung) and wide variety of flora are in the state of danger of extinction. The ecosystem is being unbalanced and might be in the short term in the state of serious deterioration. This area shall be urgently treated to prevent further degradation due to uncertainty of climatic conditions. The world heritage site is the historical and cultural wealth of the exceptional universal value and acts as a motor of the development of Preah Vihear region. The forest in this area should be preserved, regenerated and reforested in following its natural pattern and cycle. The march-land at the foot hills rich in bio-diversity shall be also protected¹¹⁾.

No detail research neither document has yet to be done or existed in flora. Field survey by international NGO has proved the existence of some rare flora in the region particularly along the Dangrek Mountains. Observations and testimony from population living in the region suggest that the area is rich in flora. Diversity of species has been found in evergreen and deciduous forests around the site of PreahVihear temple.

(2) Protection and management of water resource

Water resource is considered vital for the development of Preah Vihear and its region. It

would be unrealistic and even unforeseeable to think of development without insuring the availability of water resource in the region. Water resource to be considered herein is limited only to water supply covering mainly for drinking and basic uses for everyday life needs, for agriculture, and for bio-diversity to be cyclical and sustainable.

Water source of region of Preah Vihear relies on rainfall. The natural conditions of the environment regulated by micro-climate in the Dangrek Mountains are basic and essential to the quantity of rain fall. According to the researches by PVNA in 2007, the climate conditions in the region of Dangrek are still favorable to the development of agriculture with intensive rainfall during monsoon season. This is the reason why Foot-Hills province was one of the prosperous provinces in the kingdom of Cambodia¹²).

The main sources of water in Preah Vihear and region come from the Dangrek Mountains. The rain fall from the top of the mountains runs down with steep slopes to the hill site through successive platforms where water can be collected with the construction of small dams that help to contain the water. So according to preliminary survey by the department of topography of the Royal Cambodian Arms Forces (RCAF) in 2003 as shown by Fig. 3, water does exist on the tops of the mountains and it had been used by Khmer Rouge for multiple purposes in particular to grow rice and agricultural products to support its army.

This source of water can be studied to optimize its potentials for the water supply to population, the tourism activities and agriculture in Preah Vihear region. To meet the above targets, water source has to be protected from pollution and from over use to insure its sustainability.

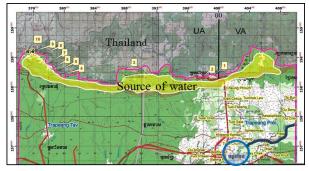


Fig.3 Water sources on the top of the Dangrek mountains $^{13)}$

(3) Protection and management of land resource

Land should be considered as a natural resource with the same importance as water and Reforestation is essential for forest. the reconstitution of the health of soil. Forest, water and land are the three basic natural elements that are interwoven and can be hardly separated. It is evident that forests exist and insure its reproduction cycle on land. Farmers depend on land to practice agriculture, and city needs land to be built upon. So in this respect, land is the most fundamental asset for everyday life for farmers. Nowadays some people are living in houses constructed on water as an alternative for settlement because of scarcity of land. This natural resource is becoming rare and its value is increasing no matter if it is agricultural or urban land because of the increased number of population.

(4) Improvement of agriculture

Preah Vihear region is primary an agriculture region province. The represents strengths, opportunities weaknesses, and threats agricultural development. Overall, the strengths and opportunities outweigh the weaknesses and threats. Most of the weaknesses and threats could be from the agricultural development removed equations through appropriate technical know-how and good management projects. For example, limited capacity of staff and farmers could be dealt with through provision of capacity building programs; animal diseases and declining soil fertility could be addressed through improved services, agricultural knowledge/technologies and protection of environment such as forest. In this matter, government should step in to provide help to farmers. Also landlessness problem can be tackled through government's social land concessions policy that protects the rural land-owners in order to reduce reduction poverty and economic development in the remote areas of the country. In addition, the authority shall stop anarchic land clearing by the population and illegal land grabbing by investors or by some audacious high ranking government officials. Government of Cambodia should reinforce its efforts in helping the rural poor improving agriculture.

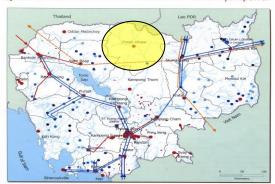


Fig.4 Projected national transmission grid and potential hydropower¹⁴⁾

5. ENERGY RESOURCES FOR CLEAN ENVIRONMENT

Cambodia is at the beginning stage of a vast program of its energy planning. In the capital city of Phnom Penh as well as in the major cities in the country, existing electrical energy is very limited. In this situation, the conditions that prevail in the far out countryside are quite below the requirements for everyday life and far more limited for economic activities. **Fig. 4** shows a project to extend the grid to districts in on the way but it would take time since at the present time there is no fund has been set for. Only private sectors invest with high cost of KWH¹⁴).

6. SCOPE OF TOURISM STRATEGY

(1) Originality of tourism products

Since tourism is the spearhead of development, it is expected that it would have great potential to generate revenue. When reaching its momentum, this resource could be re-injected into other development projects of high priority definition that should be implemented according to a sequential time frame and be coherent with global objective of a sustainable growth for the Preah Vihear and its region. Tourism development should take its root from two basic criteria of the cultural values and the natural environment because it will be singular, original and not lose its potentials in the long term as normal tourism activities. It is singular because it is based on the specificity of Khmer cultural identity, the tradition and the way of life that have

been existing for many centuries. It is original because of the exceptional universal values of the site and the nature of surrounding environment of the region highlighted by the landscape of the Dangrek Mountains nearby. The fact that Preah Vihear was inscribed in the World Heritage list is not only an honor to Khmer culture but also an exceptional advantage in development opportunity. By good advertisement through mass media and relying aggressive and competent travel agencies it will become an attractive new tourism destination in the region.

a) At local level

It is worth to visit the temple located in a very special site declared as World Heritage. It should therefore be subject to the rules and regulations of World Heritage Committee. The archeological work, the safeguard of monument from deterioration and the maintenance of the site are at least the prerequisite of the regulations¹⁵⁾.

Any tourism activities shall be in line with the set of rules in practice for World Heritage monuments. The surrounding of Preah Vihear is full of temples with historical and cultural background. Along the Dangrek Mountains range and on the plain, there is a wide variety of tourism products ranging from culture, nature, eco-tourism, to bio-diversity. There are also ethnic groups called as the Kouy who have succeeded in keeping their traditional way of life for centuries up to the present time ¹⁶⁾.

The unfortunate dark page of the Khmer history during the Pol Pot's regime should be remembered by the next generation. Thus it would be significant to repair the existing Ta Mok's Khmer Rouge army chief head quarter in Anglong Veng. For the moment this compound is degrading with no maintenance and no project to restore in the near future. It would be wise to convert Ta Mok's head quarter into a national museum that could certainly attract tourists or historians.

b) At regional level

Preah Vihear is closed to other provinces which have also heritage site for example in Seem Reap and Odor Meanchhey adjacent provinces. Toward Odor Meanchhey province along the Dangrek Montains, they are famous monuments such as Prasad Ta Moin, prasat Ta Krabey, and at the border of Bantey Meanchey province, the famous

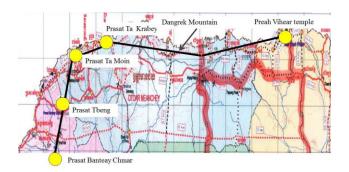


Fig.5 Linking Preah Vihear to other famous and important temples (Ministry of Public Work and Transport)

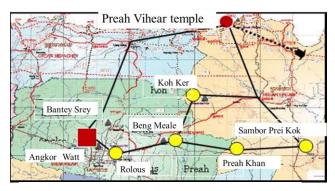


Fig.6 Wide variety of tourism options

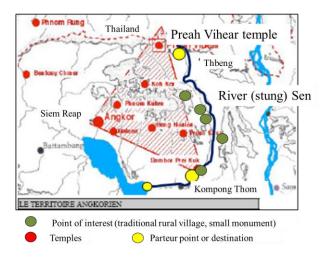


Fig.7 Cultural cruise on river (stung) Sen

archeological site and temple Bantey Chmar which part of the Foothill province. These temples could be linked together and constitute an itinerary for a visit by improving existing access road as shown by **Fig. 5**.

Linking Preah Vihear to the other famous and important temples located at the regional level called Angkorian Territory consisting of Angkor, Koh Ker, Sambor Prey Kup, Beng Mealea, Preah Khan, Rolous, and Banteay Srey is an option for tourists' program as shown in **Fig.6**. These temples are master pieces of Cambodian architecture and arts during the Khmer empire and are now in restoration phase by the government.

Many streams originate from the top of Dangrek Mountains range. Some studies should be done in depth to identify the water network in particular the one with potentials of being a water way that can be used to organize journey of discovery. It seems that river (stung) Sen taking its source from Laos, crossing Thbeng Meanchey in the direction of Kompong Thom province before finishing its course in the Tonle Sap Lake is a popular way of traveling by boats as shown by Fig.7. In 2010, population in Preah Vihear province has organized the annual water festival in that river. It proves that river (stung) Sen can be improved and organized in order to optimize its potential. Since the river runs

through many interesting rural villages with each one of them having diversity of livelihoods and traditional way of life, a project can be thought out and can be source of original tourism product. Connecting the small typical Cambodian villages with their characteristics in terms of micro-culture with a water way can be included in the design and the program for the journey of discovery, taking visitors from the departing point such as Thbeng Meanchey to final destination at Kompong Thom or on the lake Tonle Sap. Since they are famous archeological sites closed by the river like Koh Ker, Preah Khan Sambor Prey Kup, a combination of visits to the temples within a journey can be an additional itinerary for visit. For cultural tourists and scholars, the visit requires a special trip planning.

To make the cruise possible, it is necessary to dredge the river Sen. By doing so, water during raining season will not goes overboard, preventing

Table 3 Different touristic activities and program at different time frames

Short time (5 years)	Medium Term (8years)	Long term (10 years and above)
1.Temple Visit by facilitating access	1.Development of Z2 and Z3 with	1. Expand tourism activities to
from bottom to the top, and	tourists, product: transport systems,	district with original tourism products
services,	eco-tourism: elephants tour,	
	bicycling, walking, oxen car,	
2. Religious and Pilgrimage tour to	2.Development of Sra Em with urban	2. Link Preah Vihear Temple to
visit Temple,	development plan,	Anlong Veng Town,
3-Annual spiritual worship at the	3- Park and botanical in Z3to make	3- Visit of temples along Dangrek
cave,	Z3 a living park, Mountains with Preah Vihear	
4.Reconstruction of the King's	4. Promote tourism link between	4. Visit the Triangle Patrimony
ceremony to visit the Temple from	Temple Site and district	
Historic staircase,		
5.Annual Festival of Shiva's Dance	5. Organize tours for Home stay with	5. Visit Itinerary from Angkor Wat-
on the historic Temple dancing place	villages,	Koh Ker-Preah Khan Phnom Kulen,
6.Annual Festival of Music for Peace	6. Installing mechanical means to	6.Visit the Living Angkor Road
by International & National	facilitate senior citizen taking	Angkor Wat- Preah Vihear- Phimai in
Orchestra,	Historical Staircase to Temple,	Thailand,
7. Annual Sound and Light with	7. Make Eco-Village a touris	7.Travel Tour from Preah Vihear
International or Regional competition	attraction	Temple to Wat Phu using ancient royal
of dance at music,		road,
8. Organize Phum Ben (festival of	8.Reconstruction Ta Mok's museum	8.Tour in the Foot-Hills province to
death) with the nearby pagoda,	at Anglong Veng,	learn civilization,
9.Improving the Global Museum as	9. Urban development of Anlong	9.Travel tour from Preah Vihear-Phi
main entrance to Temple	Veng as stop over with tourists'	Mai-Wat Phu -Angkor - Phu-My Son,
	facilities	Vietnam

therefore the flood on the villages situated along the river.

c) Beyond national border

On a long term planning, the tourism development could cross the Cambodian border to link with the other archeological sites and temples built during the apogee of Khmer empire.

(2) Proposed tourism development program for Preah Vihear

Tourism strategy should be thought in a line time so to coordinate a network of visits along the trails of cultural sites and temples built by the Khmer empire. A road network should be designed to take advantage of the Great Mekong Sub-Region Development philosophy program.

Table 3 proposes the different touristic activities and program at different time frames. The immediate actions are given in the list of prior projects which concern mainly the restoration of the temple and the improvement of tourists' facilities such as good access from the bottom of the mountain to the top and vice versa. Considering the important slop for the road going up to the temple, it is advised that the Preah Vihear Authority gives all attention to the security of the visitors.

The table provides a program for the development of tourism in Preah Vihear based on the recommendation of the World Heritage Committee. A complete document of the management of Preah Vihear is limited to the preservation of temple site and its protection zones. Its recommendations concerning the tourism do not go beyond the outer limits of the protection areas of the World Heritage Sacred Site of Preah Vihear.

7. PROPOSED REGIONAL DEVELOPMENT

The long term vision should focus on the sustainability of the economic and social development in the region of Preah Vhear temple. It means that parallel to the immediate, medium and long terms actions, a series of actions should be planned and be implemented progressively within a continuous time frame, according to the suggestions described and explained previously in 3. The future development of Preah Vihear and its region should conceive to have backup and complementary economic potentials that exist in the nearby

provinces to make a flow support activities in terms of global approach to reach regional sustainability development.

No matter potentials Preah Vihear region disposes its economic development is linked at least to the two adjacent provinces which have complementary potentials. The regional development has the objective of a sustainable global growth.

Regional development will also help the rural poor to participate in the process of growth and to share equitably the benefit by using the example of the "Green Belt Project" successfully implemented in the province of Siem Reap 17,18). The project adopted a strategy of "quick win" to convince the population to participate and to rely on themselves to initiate other projects that respond to their needs. A relationship was built between the population, the private sector and the district governance. Experience of the Green Belt project in the province of Siem Reap funded by Germany has proved that it was indispensible to involve the poor rural in the process of development because they had confident that the output of the project will be profitable for them. The strategy of "Quick win" can show immediate results that stimulate and encourage them to participate fully.

8. PRIOR PROJECTS

Since resources are not all available at the same time and do not produce the same effectiveness, it is wise and important to envisage their use according to a sequences of strategic planning framework. It would be most logic to think what kind of resources should be mobilized first into the development process that in turn is considered priority in comparison to the overall development plan that needs time to implement. So the action plan shall be designed in such a way that it would provide successive phases of output that would lead immediately to quick expected results. The results would themselves be re-injected as input so to enhance the next steps that would insure the momentum of the development process. In that manner the revolving mechanism would help to optimize the use of available resources in one hand, to attain objective quickly in the other. Considering the phases and priorities resulted from the present

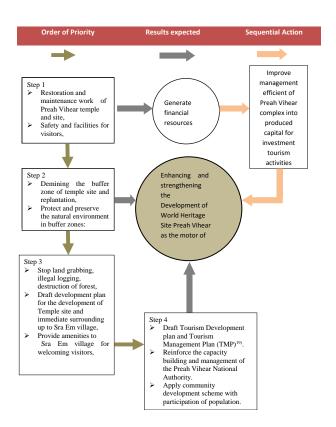


Fig.8 Flow chart of the proposed actions plan

dissertation, the following actions plan is proposed. It is represented by a flow chart whose actions are listed according to priority as shown by **Fig.8**.

- Restoration and maintenance work of Preah Vihear temple and site,
- > Safety and facilities for visitors,
- ➤ Demining the buffer zone of temple site and replantation,
- Protect and preserve the natural environment in buffer zones:
- Stop land grabbing, illegal logging, destruction of forest.
- ➤ Draft development plan for the development of Temple site and immediate surrounding up to Sra Em village,
- ➤ Provide amenities to Sra Em village for welcoming visitors,
- ➤ Draft Tourism Development plan and Tourism Management Plan (TMP)¹⁹⁾.
- Reinforce the capacity building and management of the Preah Vihear National Authority.
- Apply community development scheme with participation of population.

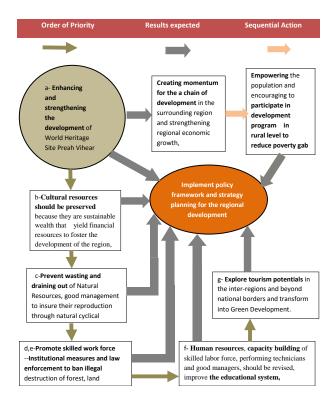


Fig.9 Vision for the second phase of the development

9. CONCLUSION

The final conclusion for the Development of the World Heritage Sacred Site of Preah Vihear as well for the whole country as visualized in this dissertation can be better summarized by the following lists and the flow chart showing a vision for the second phase represented by **Fig.9**:

- a) Strategic planning, to enhance the first step of development of Preah Vihear region, should use the World Heritage of Sacred Site Preah Vihear to start with. Flow chart 1 gives the priority actions to be taken urgently..
- b) Cultural resources should be preserved to strengthening as national identity that has been since an invaluable heritage tangible and immaterial. They should be used as sustainable wealth capable to yield produced resources in Development of the Region of Preah Vihear.
- c) Natural resources should be protected at all cost to prevent wasting and drain out. They should be well managed in the way to use them with respect to their natural reproduction cyclical mechanism. Land, water, forest, and minerals and other components of bio-diversity

- sphere should be preserved and well managed.
- d) For sustainable development., skill and knowledge of labors force should be recycled to respond to the competitive environment of work force market demand. In addition, they should have the human factors such as integrity, transparency, responsibility and the quality of leadership.
- Institution and Policy should be reviewed, adjusted or reformed and implemented in order to respond favorably to the above conclusions. A short term strategy should plan for in order to grain and to foster the mechanism of development. The education system should be revised because it is outdated compared to the new trends in learning technics and philosophy in international practice. Implementation of the policy of decentralization and de-concentration allow the people in particular the rural poor to participate and share decision making with government authorities in order to fully participate in the development process. The output of economic growth should be equitably distributed among the population.
- Human resources, including skilled labor force, performing technicians and good managers, should be considered as basic and fundamental Protection ofNatural and man-made included environment should be development planning policy. Avoiding destruction such as illegal logging, forest clearing, pollution of water and reduction of agricultural land by unjustified projects should be banned and stipulated in laws enforcement, rules and regulations which permit to respond to the needs of the rural poor. Urbanization should be subject to planning in order to provide a good human settlement with proper services and adequate health conditions.
- g) Exploring tourism activites and use them as a spearhead for the development by taking advantage of the well known World Heritage Sacred Site of Preah Vihear. The opportunity is now good to bridge relationship with Thailand. The International Coordination Committee for Preah Vihear should be created to start off a cooperation and partnership with Thailand for the development of both sides of Preah Vihear region.

There is to believe that sustainable development in Preah Vihear region can be reachable. Integrating nature, man and economic development and social progress is possible within a reasonable time line.

References

- The University of Texas Library: Perry-Castañeda Library Map Collection, Cambodia Maps (http://www.lib.utexas.edu/maps/cambodia), 1997.
- Someth, UK., Minagawa, M.: Past development and present issues of world heritage region of Preah Vihear in Cambodia, Journal of Construction Management and Engineering (F4), Japan Society of Civil Engineers, Vol.69, No.4, pp.I_313-I_322, 2013.12.
- 3) Someth, UK., Minagawa, M.: Wealth and potentials as motor for the development of world heritage site of Preah Vhear and its region in Cambodia, Journal of Construction Management and Engineering (F4), Japan Society of Civil Engineers, Vol.70, No.4, pp.I_193-I_204, 2014.12.
- Ministry of Planning of Royal Government of Cambodia: Statistics Yearbook of Cambodia 2008, pp.120-127, 2008.
- Food and Agriculture Organization of the United Nations: Forest Resource Assessment, 2000.
- The Atlas of Cambodia: National Poverty and Environmental Maps, 2006.
- 7) Wikipedia: The free encyclopedia.com/Asia/Laos.
- (CDRI)/Wildlife Conservation Society (WCS), Nov 2004; Bruce Mc Kenny, Yim Chea, Prom Tola, Tom Evans,
- CIA: World Factbook and Other Sources, last updated on January 28, 2014.
- 10) Japan External Trade Organization : Fondamental economic indicator of Cambodia, http://www.jetro.go.jp/world/asia/kh/stat_01.html, browsed on May 14, 2015.
- 11) University of Tokyo and RUPP University: Orientation Plan for the Development of Preah Vihear, 2009.
- 12) Sahai, S.: An Introduction to the World Heritage Monument, UNESCO Cambodia, pp.5-6, Sept 2009.
- 13) Royal Cambodian Arms Forces: Survey on the water resource, 2003.
- 14) Electricite Du Cambodge: Electricity of Cambodia , Project National Extension of Grid and Potentials of Hydropower, 2012.
- 15) Gupta, D.: World Sacred Site Preah Vihear Management
 Plan 2009
- 16) Royaume du Cambodge; Temple de Preah Vihear inscrit

- sur la liste du Patrimoine Mondial; dossier relatif à la mise en Œuvre de la Décision 32 Com8B.102 du Comite de Patrimoine Mondial (32ème Session-2008, Québec, Canada), Phnom Penh, April, 2009.
- 17) Cambodian-German Cooperation: GIZ, KWF, CoM: RED"Green Belt Project" in Siem Reap, Cambodia, 2007-2015,
- 18) Someth, UK, Minagawa, M.: Minagawa, M.: Urban
- environment development in and around Shiem Reap -Angkor region, Journal of Professional Practices in Civil Engineering (F5), Japan Society of Civil Engineers, Vol.70, No.1, pp.1 10, 2014.
- 19) Sok Sangvar Apsara Authority, UNESCO, Australian Government; Angkor, World Heritage Site, Tourism Management Plan, Dec 12, 2012.

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