

German Rural-Regeneration and Its Implication for Taiwan

Chien-Zer Liu¹, Feng-En Lo¹, Ying- Shih Chen²

Abstract

Agricultural production in Taiwan becomes less important with respect to the rapid industrial and commercial growth. Agricultural income is relatively low. The rural construction is relatively behind. Insufficient public facilities, and working and living environmental quality have not yet been improved. Germany is well known primarily as an industrialized nation. And Germany is engaged in long-run efforts for the enhancement of rural self-growing and sustainable development. Agriculture in Germany with its multifunctional features and high quality and safety standards forms the basis for a sustainability policy. The mechanisms of German agricultural policy on the integrated rural development provide much experience to learn from. Council of Agriculture (COA) of Taiwan generated a project “Rural-Regeneration” for the rural development of Taiwan in 2008. Corresponding to Germany, “Village Renewal” is similar to “Rural-Regeneration” of Taiwan. To realize the Rural-Regeneration regulations and current problems in the rural areas of Taiwan, to study the German experience on integrated farmland consolidation and to learn how they coordinate the land use planning with the land consolidation in villages, to realize the management of rural community constructions and building planning in Germany, to consider the German experience to generate a long-term rural development policies and strategies in Taiwan are the objectives of this research.

¹ Dept. of Leisure and Recreation, Asia University , Wufeng, Taichung, Taiwan, R.O.C.

² Graduate Institute of Ecotourism, National University of Tainan, Tainan, Taiwan, R.O.C.

The implications of German rural development for Taiwan are as follows:

- a Strengthening comprehensive development planning in rural areas to create rural
- b Setting up specialized institutions for rural development and planning within agricultural authorities
- c Formulate rural construction law, complete territorial planning system and build the legislative status of rural planning
- d Coordinating the instruments of village renewal and land consolidation together
- e promoting citizen participation

Introduction

Agricultural production in Taiwan becomes less important with respect to the rapid industrial and commercial growth. Agricultural income is relatively low. Labors in rural area migrate to other urban regions. Aging is a problem in rural area. Agriculture is gradually losing its original productivity, vitality and attractiveness. Although most rural migration is from the relatively low farmer income or unemployment in rural area, the main reason for labor migration (especially younger generations) into metropolitan area is because of large income gap between urban and rural areas. The rural construction is relatively behind. Insufficient public facilities, and working and living environmental quality have not yet been improved. The village houses are indiscriminate, farmlands are losing gradually, ecologic environments in rural area are destroyed, and rural landscapes become unnatural are the other problems.

For many years, the implementation of rural construction and village renewal from government has not ignored the improvement of physical environment. However, scattered rural constructions are not well coordinated and are lacking in aggregate, integrated, and long-term planning. It is therefore inevitable to affect construction results due to wrong investment and wasted resources. Moreover, there are only limited improvement of living and working conditions and insufficient attention to the maintenance of rural characteristics. Rural confusion and not harmonized situation are caused by the shortage of proper guidance and planning to village people for the improvement of living standard and investment. As a result, "hometown" (Heimat) will gradually depart from traditional outlook and special style causing the weak feeling of rural and agricultural concerns.

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long-run efforts for the enhancement of rural self-growing and sustainable development. Agriculture in Germany with its multifunctional features and high quality and safety standards forms the basis for a sustainability policy. The mechanisms of German agricultural policy on the integrated rural development provide much experience to learn from. Council of Agriculture (COA) of Taiwan generated a project “Rural-Regeneration” for the rural development of Taiwan in 2008. Corresponding to Germany, “Village Renewal” is similar to “Rural-Regeneration” of Taiwan.

The objectives of this research are the followings:

1. To realize the Rural-Regeneration regulations and current problems in the rural areas of Taiwan.
2. To study the German experience on integrated farmland consolidation and to learn how they coordinate the land use planning with the land consolidation in villages.
3. To realize the management of rural community constructions and building planning in Germany.
4. To consider the German experience to generate a long-term rural development policies and strategies in Taiwan.

Results and Discussion

A. Current problems in the rural areas of Taiwan

Rural development in Taiwan has fallen behind and public facilities are insufficient in Taiwan. In the past decade, Taiwan has been enthusiastically involved in village renewal and implementation of plans on environment improvement. However, in general, there has been no government functions specialized in rural development and construction. Therefore, no integrated and far-sighted development strategies have ever been effectively promoted to provide guidance to rural development. Moreover, lack of strategic guidance and legal and regulatory support leads to shortage of integrated, comprehensive and far-sighted development planning, which makes it difficult to realize the goal of integrated rural development. They can be detailed as below:

a. Lack of specialized functions to promote rural development

Village planning and renewal involves extensive hardware and software constructions, including agricultural development, public facilities, society, preservation of natural resources and environment and so on. It is integrated and comprehensive planning and construction that needs overall supervision and full efforts and support of specialized functions.

Council of Agriculture (COA) supervises agriculture in Taiwan. It is a huge organization that has extensive responsibilities to supervise agriculture, forestry, fishery and animal husbandry and so on. However, there is no institution specialized in aggregated rural development and planning and focused on the implementation. Now the jobs and tasks of aggregated rural development planning and construction are split and shared by many units who have already had some other responsibilities (for example, Agriculture and Forestry Development, Bureau of Water and Soil Preservation and Bureau of Land Administration in former provincial government). It is good in terms of division of jobs, but it inevitably causes repeating efforts and waste of resources. Moreover, the different professional backgrounds of planning participants always lead to diverse ideas and opinions of rural planning. As a result, people have the enthusiasm to do the work, but the aggregated goals can hardly be achieved.

With the rapid social and economic development, rural village assumes more and more roles. If the problems with the rural are not solved, the gap between the urban and the rural will be enlarged and the problems with the urban cannot be solved either. Although government has been focused on rural development, there is still no aggregate planning and arrangement by any specialized institutions until now. As the result, it is hard to effectively land on regulations and guiding principles of development policies in order to provide guidance to integrated rural development. Furthermore, insufficient professionals and experts fail to build clear ideology for planning or consider integration and comprehension, which inevitably produces mistakes in investment, waste of resources, and brings negative impact on construction. We would like to collect the German experiences to help to solve problems in the draft.

b. Lack of guidance and specialized regulations for rural development program

As mentioned early, since the jobs and tasks of rural development planning and construction are so extensive, rural construction should be implemented under the guidance of integrated, comprehensive and long-term rural development program in order to realize the goals of improving

production conditions and living environment, retaining rural features and unique style, and preserving natural resources and environment. Without the guidance of rural plan, it is hard for the contents of rural planning and construction to coordinate with each other as the jobs and tasks are independent of each other. The long-term benefits are usually sacrificed for short-term effect with ignorance of comprehensive development.

Currently government conducts rural construction by implementing individual annual projects independently. There are no laws, regulations or systematic comprehensive and integrated planning. Although Rural Area Land Consolidation Act took effect on January 26th, 2000, which does provide a legal basis for village renewal, there still do not exist any laws and regulations specialized in guiding rural integrated and comprehensive construction based on unique rural features and the needs of rural inhabitants. In particular, after farmlands opened to free sales, special regulations were needed to make sure that farmlands are used for farming and the owner of farmlands cannot build houses on farmlands at free will, which would destroy the agricultural production environment.

c. The lack of ideology regarding integrated, comprehensive and long-term rural planning makes overall benefits impossible to realize

As mentioned early, the extensive contents of rural planning requires ideology of integrated, comprehensive and long-term development to achieve the goals of improving production conditions and living environment, retaining rural unique features and style, and preserving natural ecology and rural landscape. It is harmful to long-term planning and benefits by sacrificing the needs of comprehensive development for short-term profits.

Most of current occasional construction and small-scaled projects for environmental improvement in some rural areas are focused on urgent partial short-term benefits, without any idea about integrated investment and construction. As a result, the utilization of resources is not rational and effective in terms of integrated construction. It not only causes discord in rural construction but also limited resources unable to generate expected benefits.

d. The duration of rural planning and village renewal is too short to consider the needs of integrated, comprehensive and long-term development

Planning is a process of conscious efforts through certain procedures to reach a certain goal

(Raleigh, 1986). Lillotte, F.J. defines planning as systematic preparation for a reasonable behavior, which will provide the best measures to achieve the preset goals under current circumstances (Lillotte, 1981). There is a German saying: “planning is not everything but without planning is nothing at all.” (Planung ist nicht alles, aber ohne Planung ist alles nichts.) It seconds the importance of planning. Planning is a dynamic process in which systematic jobs and efforts are performed to reach a certain goal. Planning considers long-term goals and provides a long-term development basis for current construction. Therefore, both planning and construction are long-term tasks and should not simply concentrate on hardware construction for immediate effects.

Our current rural planning and village renewal projects are usually required to accomplish both planning and implementation within two to three years. The time spent on planning is less than a year. In such a short period of time, it is difficult to understand thoroughly the situation and problems concerning rural industries, society, environment, historic relics, land utilization, building and life. Even the investigation and collection of basic information can not be completed and the local rural characteristics and the rural inhabitants’ needs are yet to be learned. In such a hustle, planning is usually finished without the care and efforts it needs. Communication of experts’ opinions is not enough. Connection and cooperation between departments and institutions concerned are insufficient. Rural residents cannot actively participate in it. Not only cannot the planning be completed in this way, but also it can hardly meet the needs of integrated and long-term rural development or satisfy the requirements of rural residents or reach the goal of the planning.

B. Rural development in Germany

The primary function of rural area should be producing grains and raw materials. It also includes:

- a Preserving natural life-support systems (die Erhaltung der natürlichen Lebensgrundlagen),
- b Protecting all kinds of animals and plants (der Schutz einer artenreichen Flora und Fauna),
- c Conserving landscape (die Pflege der Kulturlandschaft),
- d Creating rural appeal in living, economy and recreation.

From Table 1, the importance of agriculture production declines, but it is still very important for rural community to adapt itself to the constant changes of agricultural structure and to satisfy the social needs.

Table 1. Gross products of agriculture, forestry, fishery, and animals (million EUR)
(Bruttowertschöpfung der Land- und Forstwirtschaft sowie Fischerei in den Bundesländern (in jeweiligen Preisen))

| Year | Baden-Württemberg | Bavaria | North Rhine | All Germany |
|------|-------------------|---------|-------------|-------------|
| 1995 | 2,634 | 4,080 | 2,754 | 21,270 |
| 1996 | 2,865 | 4,342 | 2,964 | 22,340 |
| 1997 | 2,856 | 4,217 | 2,984 | 22,670 |
| 1998 | 2,872 | 4,130 | 2,842 | 22,040 |
| 1999 | 2,788 | 4,008 | 3,016 | 22,230 |
| 2000 | 3,158 | 4,338 | 3,082 | 23,460 |
| 2001 | 2,850 | 4,949 | 3,564 | 25,940 |
| 2002 | 2,554 | 4,421 | 3,024 | 22,160 |
| 2003 | 2,223 | 3,628 | 2,698 | 19,080 |
| 2004 | 2,401 | 4,235 | 2,998 | 21,760 |
| 2005 | 2,139 | 3,402 | 2,504 | 17,800 |
| 2006 | 2,053 | 3,575 | 2,647 | 17,840 |
| 2007 | 2,245 | 4,040 | 2,878 | 19,930 |

Agrarbericht 2008

Source: Bayerisches staatsministerium für landwirtschaft und forsten :Bayerischer, 2008

Due to the intensifying diversity of rural functions as natural resources reserve, living place, recreational area and economic activity site, Germany and European Union both have focused their efforts on policies of rural development (Landentwicklung), which are based on agricultural multi-functions. In addition to its economic role for supplying food in the market, agriculture is also involved in the comprehensive renewal of the rural economy and landscape.

The sustainable development of rural areas as multifaceted areas of living, economic and culture is an important task for the future. In this context, securing a competitive and multifunctional agriculture and optimizing its effects on the development of rural areas is one of the important goals of agricultural policy. Without efficient and competitive agriculture sector that offers sufficient income possibilities and awareness of their responsibility towards the consumers, animal welfare and the environment there can be no economically sustainable growth in agriculture. The following chapter is Tasks and Instruments of Sustainable Rural Development.

C. Tasks and Instruments of Sustainable Rural Development

The integrated development of rural areas with the agricultural sectors is necessary as there are inextricable mutual effects. Therefore, a strategy for sustainable rural development is closely linked with the sustainability strategy for agriculture. The followings are the important mandates for rural development in Germany (Bund-Länder-arbeitsgemeinschaft Landent-wicklung (Hrsg.), 1997).

a. Enhancing the economy and employment

Enforcing the economic strength of rural areas and securing and creating jobs are the

1. Efficient and competitive, market-oriented and environmentally sound agriculture and forestry sectors,
2. Job alternatives outside the agriculture and forestry sectors,
3. An efficient and demand-driven infrastructure (transport, supply and disposal, telecommunications, education, cultural and social affairs),
4. An attractive living environment,
5. A healthy environment, leisure activities and a high cultural standard.

In this content, it is a particularly important for agriculture and forestry, as they play a vital role in coping with changing agricultural structures.

In addition, for rural development it is also important to create favorable conditions for the development of other industries such handicraft and recreation to contribute to rural economy and raise the income of rural residents.

b. Supporting agricultural growth

Rural life and work in the agricultural fields tend to be like two sides of a coin. Therefore, one of the important objectives of rural development is to solve farmer problems in production and everyday life and adapt themselves to the future development. So, rural development should be able to coordinate with local agricultural production features, farming systems and management.

Agriculture still is an important sector of the economy in rural areas. As it fulfills manifold area related tasks, they are of fundamental importance for the whole society. Agriculture is the only economic sector securing the management, preservation and development of the cultural and farming landscape (Kulturlandschaft) as a whole. Aiming at promoting competitiveness of agricultural enterprises and advancing their active and smooth integration into a sustainable regional and

community development, rural development instruments are to be used as follows:

1. A foresighted land and soil management must prevent conflicts in land use, which increasingly interfere with the use of land for agricultural and forestry purposes. Existing land use conflicts must be settled.
2. Cultivated areas must, be adapted to the economic requirements resulting from the continuing structural change in agriculture according to their location. Form and size and must be developed by a suitable network of roads and water bodies.
3. Gains in productivity and time can free resources for non-agricultural activities and income alternatives. In addition to direct marketing, tourism and management measures in the framework of nature and landscape conservation, the provision of new services in the framework of village renewals must be facilitated. This can be done by renovation of farmhouses, converting the use of agricultural buildings, and the renewal and utilization of rural buildings, in particular for the purposes of living, commerce, trade, cultural activities or public and community life.

c. Promoting regional and community development

The preservation and improvement of the site qualities of rural regions and their villages as autonomous places for living and economic activity must be at the heart of the support for these regions and their villages. As a prerequisite, communities which are previously competing with each other must identify areas of conflict, jointly plan possible solutions, coordinate their activities and implement cross-community measures. The speedy and efficient implementation of projects is part of a successful rural development strategy.

In order to improve site qualities and living conditions in rural areas the implementation of the following goals is a priority:

1. High priority must be given to the protection of land ownership. It means creating legal safeguard (Rechtssicherheit), activating private capital and thus promoting public and private investment.
2. Providing land for infrastructure projects and building sites at attractive locations facilitates the establishment of service, craft and trade Industries.
3. A sustainable housing development with little land consumption must be promoted, for instance by preserving characteristic village buildings through converting their use and

renovating them.

4. Community spirit (Bürgersinn), community life (Gemeindeleben) and village culture (Dorfkultur) can be revitalized, for instance, by preserving or establishing community centers (Bürgerhäusern), village inns (Dorfgaststätten) and village stores (Dorfläden) as well as by supporting social and cultural initiatives.

d. Preserving natural life-support systems (Natürliche Lebens-grundlagen)

The elements of nature such as water, air and soil as well as beautiful landscape provide an essential and indispensable basis for human beings survival and natural life. A rural development committed to future generations must be geared to the implementation of measures aiming to protect the natural life-support systems and resources. “AEP”, land consolidation and village renewal are all highly suitable instruments for implementing the principle of sustainability as stipulated in agenda 21. They give equal consideration to economic, ecological, social and cultural aspects. Part of their tasks to promote regional culture is the preservation of the functioning of the natural balance and the restoration of semi-natural habitats and landscape structures.

In the interest of a durable stabilization of ecosystems we must make sure that projects in the fields of environmental protection, nature conservation and landscape management are carried out area-wide, taking into account the interests of owners and users and the need to secure their existence on a permanent basis. In the interest of a sustainable protection of natural life-support systems instruments must primarily be used in order to

1. Preserve cultural and farming landscapes (Kulturlandschaften), for instance through the continuation of an area-wide agricultural cultivation.
2. Implement landscape planning projects, for instance by making land available and reorganizing them.
3. Establish biotope networks, for instance by preserving and interlinking semi-natural (naturnaher) areas.
4. Provide areas for water retention (Wasserrückhaltung) and reduce the risk of erosion.
5. Support the protection of land and water and preserve drinking water reserves.
6. Carry out compensation and substitution measures at suitable locations in accordance with nature conservation legislation.

7. Support special environmental protection programs, for instance programs concerning wetland meadows, riverbanks, statutory nature conservation and intensification.
8. Add ecological assets (ökologische Bereicherung) to the village, for instance by designating green belts, planting greenery, unsealing surfaces and restoring water bodies (Gewässerrenaturierung).

e. Making advantages of integrated sustainable rural development

Integrated sustainable rural development means (Liu, 2003):

- a Pooling measures and funds for implementation,
- b Flexible and transparent planning projects geared to the local and regional needs and possibilities,
- c Speedy and efficient implementation of measures.

We will only succeed in creating favorable development conditions for the multifaceted rural areas if individual projects are pooled to form a development approach combining all disciplines. This is why agricultural structural policy measures shall, for instance, be closely linked to regional industrial and transport policies and to environmental and employment policies to form a regional strategic concept. It is only with the help of such an independent, integrated and sound policy that success in rural development can be achieved.

Public participation is involved in the planning process. Furthermore, the system is highly decentralized. In other words, decision-making is not only reserved at the highest level, but also playing a very important role for the lower levels.

In this context, rural development instruments should be used in connection with other possible solutions as a service for the development of rural areas and their villages, in order to be more successful in competing for investment, new businesses and jobs.

f. Providing support for enacting planning decisions

A variety of planning procedures at different levels and carried out by different sectors are concerned with rural areas. Due to their integrated and cross-community approach rural development instruments are particularly suited for being used in a cooperative process with authorities, other institutions and citizens aiming to harmonize planning procedures and, above all, to implement them in a way to achieve consensus. Rural development

instruments can best be used in the following situations:

1. Rural development instruments should be used when large-scale projects are implemented. The aim being to integrate these infrastructure measures into the cause-effect of rural areas, which is compatible with ownership, social and environmental concerns. Thus negative effects of large transport projects on the areas concerned can be reduced, and the potential of positive effects of projects can be best fulfilled.
2. With the help of rural development instruments, competing sector plans, for instance by the transport, water management, and agriculture and forestry sectors or by nature protection authorities can be pooled in a combined planning authority and measures can be implemented in a way to achieve consensus. The following Figure 1 summarizes the relevance of rural development in Germany.
3. Rural development must be offered in communities as an aid when establishing and implementing construction planning. Land management can effectively accompany township projects such as the drawing up of a "local Agenda 21", the improvement of the infrastructure, or the designation of building sites.

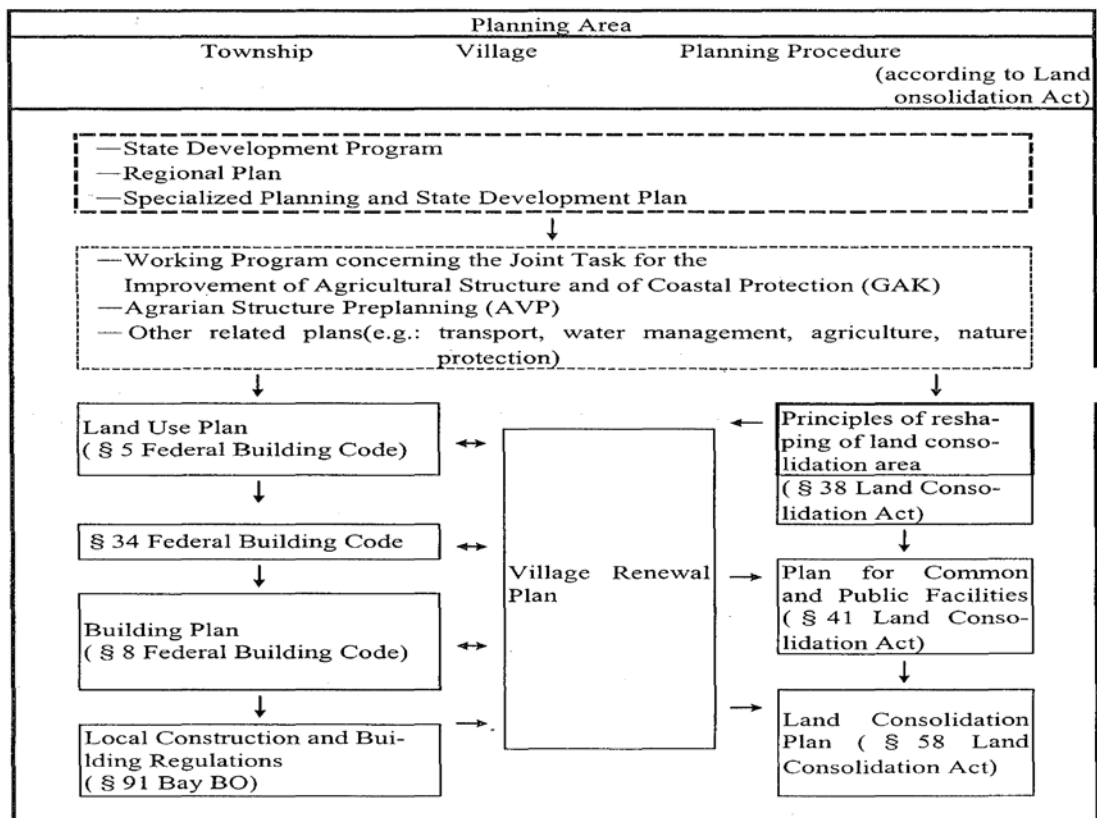


Figure 1. German Rural Development Planning

Source: Strößner, G., Das bayerische Programm Ländliche Neuordnung durch Flurbereinigung und Dorferneuerung, München Nov , 1991.

D.The Important Instruments of Rural Development

In order to fulfill the tasks and responsibilities of rural development, the instruments portrayed hereinafter shall be utilized individually, reasonably linked or as an overall package, showing high flexibility and depending on regional potentials and deficits (Bund-Länder-Arbeitsgemeinschaft Landentwicklung (Hrsg.), 1997).

a. Agrarian structure preplanning (AVP)- preparing the basic information for planning

Even through the bigger environment has changed, agrarian structure pre- planning (Agrarstrukturelle Vorplanung, i.e. AVP) are still the primary measures for rural development in Germany (Läpple, 1996).

Agrarian structure preplanning is under the framework concerning the “Joint Task for the Improvement of Agricultural Structure and coastal Protection” and usually beyond regional planning to cover a whole township or a region of several townships in the planning (Wei, 1996).

Agrarian structure preplanning is directed by the goals of national and state territory planning as well as considering local economic structure, public investment, landscape structure and the requirements of land use planning and building plan (Bauleipläne) (See preceding figure 2).

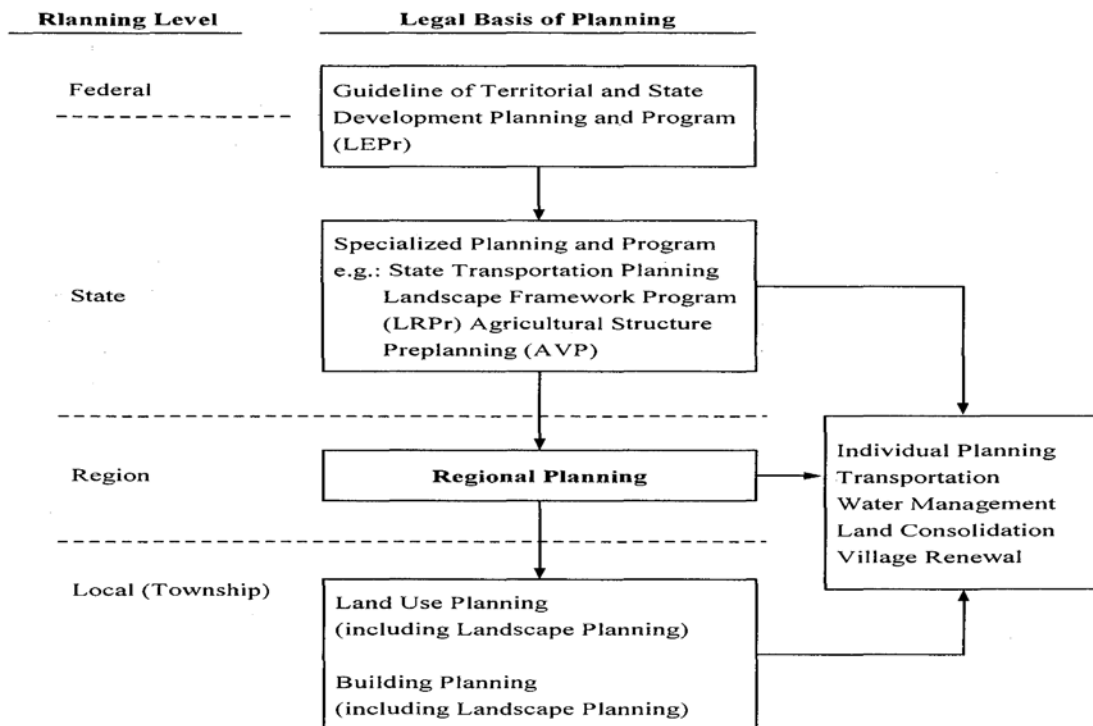


Figure 2. Land Use Planning System of Federal Republic of Germany
Source: Liu,C.Z. 2001

The complete planning on rural development must be based on detailed analysis of facts. Therefore, agrarian structure preplanning must get the picture of the most recent individual situation of the regions in planning, and then assess the necessity of the measures for improving agricultural structure and how these measures could be implemented by coordinating with other plans. This preplanning must come up with general goals for regional development and concrete proposals of how to improve agricultural production conditions and structure. At the same time, it must also take into account the building plan proposed by town-ship government for urban and rural renewal, as well as study the possible non-agricultural employment opportunities. Hence, both the goals and measures of village renewal must be based on the comprehensive knowledge of rural landscape, ecology, society, economy and public infrastructure.

By way of introduction of regional and community activities, agricultural structural preplanning (AVP) is particularly suitable, as it identifies the inter-connection of plans and measures. In addition to this, these plans can also be drawn up in connection with regional development schemes, regional conferences and town networks. If they are handled freely and flexibly synergy effects that can be used, loss by friction can be avoided and thus investment can be placed at the right time and in the right place.

b. Development planning for agricultural structures (AEP)—Paving the way for an integrated rural development

A new concept of the development planning for agricultural structures (Die Agrarstrukturelle Entwicklungsplanung, AEP) as a preliminary planning in accordance with the law on the “Joint Task for the Improvement of Agricultural Structures and Coastal Protection” has already been drawn up. This is done in order to promote an integrated rural development and to implement measures speedily. With their help, it is possible to

1. identify areas of conflict, development opportunities and the need to take decisions on land management in rural areas.
2. develop models for each area and land use schemes for the area subject to planning.
3. draw up action schemes and implementation strategies and
4. suggest the use of appropriate rural development instruments for practical measures, setting priorities as to time and place and including the corresponding funding models.

The AEP is a planning basis for the consideration of agricultural and forestry concerns as well as for the condition of projects aiming to maintain the functioning of rural areas and their villages. In addition to this, AEP can identify requirements and measures having regional effects, which can be secured by applying the goals or principles of regional planning. This is why AEP must be used at an early point in time in order to highlight the aspects which are important for the future of the area concerned, and to identify key projects, and to stop things from going off course.

c. Land consolidation-rural land reorganization and active rural development

Under the provisions of first article of German Land Consolidation Act (Flurbereinigsgesetz), agricultural land holdings may be rearranged with a view to improving the production and working conditions in agriculture and forestry as well as promoting the general land use and rural development.

Improving the production and working conditions in agriculture and forestry is increasing the economic strength and competitiveness of agriculture and forestry. From economic and ecologic perspectives “Land use” has two meanings. Firstly, it refers to the land use for the purpose of agricultural production and structural improvement. Secondly, it also refers to protection of natural resources and landscape. Therefore rural development includes all improvements of rural economy, liming and recreation environment through appropriate planning, preparation and implementation of various policies and measures, so as to create a long-term pleasant liming environment outside urban area (Weiß, 1996).

So German land consolidation includes three aspects (Strößner, 1991):

1. in the aspect of agricultural development, proposing guiding policies concerning land arrangement, road and irrigation construction, water and soil conservation, and land improvement for the purpose of improving agricultural production and working conditions;
2. in the aspect of rural development, engaged in housing construction and public infrastructure investment, coordinating with the requirements of village renewal and industrial growth, in order to improve the living and working conditions of rural community;
3. in the aspect of landscape conservation, planning on guidelines, coordinating with the requirements and needs, for landscape and natural resources conservation and recreational area development in order to preserve farming landscape. It is obvious that land consolidation takes

these three aspects of agriculture as production, living and ecology into consideration. The followings illustrate the related tasks and contents of German land consolidation (Strößner, 1986):

- (1) Supporting agricultural growth – land consolidation is the most important means to encourage agricultural growth. It merges small pieces of land or land of improper shapes from economic perspective into sizes and shapes that meet the productive and economic needs and requirements. It coordinates the improvement of industrial growing path and agricultural production conditions.
- (2) Coordinating with village renewal – Land consolidation reserves land for buildings needed for rural development. It improves the living conditions for rural inhabitants. Their off springs are more willing to stay because they have space to expand their housing after they grow up (Strößner, 1986)
- (3) Greening farmland for construction – Land consolidation frees farmland to serve the needs of public infrastructure construction and others.
- (4) Planning on landscape – Land consolidation is particularly concerned with the tasks and responsibilities for landscape and natural resources conservation.

d. Village renewal-making life and living in the countryside more attractive

The primary goals of village renewal include: 1. to create the rural economic strength and to improve the working conditions and living environment for rural inhabitants; 2. to preserve and maintain rural traditional features and unique style; and 3. to protect natural landscape and ecologic environment.

The improvement of rural economic conditions is significant to maintenance of rural vitality (Lebenskraft) as well as to rural modernization and diversification. In particular, when agriculture no longer provides the major income source for the region, the focus of rural development is shifted to generating non - agricultural employment opportunities and income. Although agriculture is less important to economy, it still functions as a critical factor in natural resources and landscape conservation and protecting the beautiful scenery, unique features and appeal of rural area.

It brings additional significance to village renewal. Village renewal can improve the economic and living conditions, provide necessary and basic public infrastructure, and thus maintain sufficient population density. It is consistent with the goals of territorial planning. It ensure a dynamic culture

(lebendige dörfliche Kulture) and a healthy environment. It also provides living and working opportunities and alternatives for heavily populated regions.

E. Goals and Contents of Village renewal in Germany

a. The goals

Derived from the necessity of village renewal, the primary goals of village renewal include: 1. to create the rural economic strength and to improve the working conditions and living environment for rural inhabitants; 2. to preserve and maintain rural traditional features and unique style; and 3. to protect natural landscape and ecologic environment. They can be explained on detail as bellows(Liu, 2001):

1. Promote a prosperous rural economy as well as meet the needs by agricultural development

It is one of the primary goals of village renewal to promote the development of country industries especially agriculture so as to strengthen the rural economy. The village inhabitants would thus have better job opportunities. In the progress of moderation, when machinery replaces labor, workload would be reduced and productivity would be increased. Therefore, village renewal should fit with the local features and behaviors of production and operation, improve the roads for internal commutation and connecting to outside, reconstruct farm houses, renew and utilize rural buildings. In addition, it is also important to create favorable conditions for the development of other industries such as handicraft and recreation to contribute to rural economy and raise income of rural residents.

2. Improve the working and living environment as well as preserve the unique rural features

While enforcing rural basic public investment, improving working conditions and living environment for inhabitants, village renewal should also preserve the unique rural features and avoid any damage to traditional country style from construction. Therefore, we need always to keep it in mind in the process of rural planning and construction –“construct hometown to beautify it or damage it? ”. In other words, village renewal has significant impacts on preservation of unique rural features and style. It is supposed to make village retain its unique style and full of vitality in the process of modernization and improvement of living conditions.

3. Protect natural landscape and ecologic environment as well as meet the needs for rural leisure

The elements of nature such as water, air and soil as well as beautiful landscape provide an essential and indispensable basis for human beings survival and natural life. The beautiful landscape

and unique style, which do not exist in urban area, makes rural area, on top of its farming and living functions, a great place for urban people to spend vacations refreshing and relaxing. It has become an important goal and task of village renewal to protect village ecology so that the recreational value of village could be appreciated with its diverse, unique and beautiful nature and landscape. Therefore, village renewal shares the responsibilities to create a nice recreational environment in rural area and to increase its recreational value by making it more attractive and dynamic.

The projects of regional parks, landscape and recreation can give a good example to protect the rural environment preservation and recreational business development in Germany. The regional government authorizes some professional counseling companies to base on the villagers opinions to design landscape and recreational facilities of regional rural parks for a long period. The procedure to get the villagers opinions is as the following: The consultant goes to visit the renewal village, and often meet with villagers. Through many times of meetings, the consultant and villagers will base on the results to design landscape and recreational facilities of regional rural parks.

b.The Contents

The traditional role of rural village is as simple as a common community for farmers to work and live. With the social and economic development and the change of agrarian structure, the role and structure of rural village have changed. In order to satisfy the needs generated by the changing society and economy, the contents of village renewal are so extensive that involved in such four aspects as living conditions and infrastructure, agriculture and working environment, environment and ecology, and society and culture (Figure 3). They are concrete, integrated and long-term.

1. Living conditions and infrastructure

As discussed early, it is one of the primary goals of village renewal to enforce rural infrastructure construction, renew houses and improve the residential living environment. In order to reach the goal, it should be encouraged to establish the proper public facilities, private service and supply facilities, for example, park, green land, recreational facilities and sports ground. It is worth special attention and efforts to preserve unique rural features and style by designing buildings, plaza, commuting channels and other facilities in a manner that fits in with unique rural features and style.

In addition, based on the needs by rural modernization, the public facilities related to transportation and telecommunication services, including post and telecommunication, information network, can also be continuously improved and added.

2. Agriculture and working environment

As the role of village is diversified, the purpose of village renewal should be encouraging

agricultural development as well as improving production conditions to simplify jobs, increase efficiency then to create a favorable environment for agricultural development.

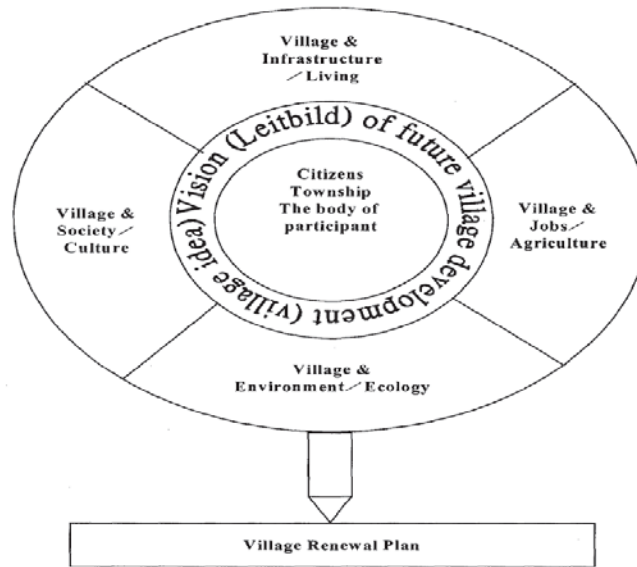


Figure 3. Four Aspects of Village Development
Source: Liu,C.Z., 2001

(1) The primary mission is to assist and support agricultural development

Since agriculture is so important to rural area, it is critical to support agriculture's long-term survival and continuous growth. On top of the measure like improving agrarian structure, modernizing production, reconstructing buildings and consolidating land, village renewal always involves the following tactics:

- Help farmers take initiatives in marketing and sales, and expanding markets
- Help farmers exposed to more employment opportunities

Village renewal in Inden town is a good example to assist and support agricultural development. There is a coal mine in Inden town, the coal mine company separate different stages to collect coal mine. Most lands that cannot be collected any coal mine are planned to culture crops, some are designed to build some leisure and recreation facilities as regional parks, a little amounts are planned to build a community for those people living on the new coal mine.

(2) Village renewal is also concerned with creating new non- agricultural employment opportunities

In order to increase employment opportunities, enhance the vitality and economic strength of rural area, village renewal should encourage the development of other industries in rural area. The other industries can be classified as: services in daily life, handcraft and small business.

(3) Village renewal should fit with the rural environment preservation and recreational business development

Rural area preserves natural resources and environment. It is also a place for urban residents to spend vacations. Therefore, village renewal needs to coordinate with rural environment preservation planning in order to promote the rural recreation businesses. In addition to houses, as mentioned early, to be rented to tourists, those idle buildings can also be remodeled to be country museum, custom museum, agricultural products trade show center and various recreational facilities. It is important to preserve rural environment and style and maintain the beauty and uniqueness of countryside to attract tourists.

3. Environment and ecology

German scholar Wilhelm Landzettel ever said: “When village is renewed, the surroundings of village must be included. The village to surroundings is like to egg white. Even hungry man won’t have appetite for an egg without because it is not how egg is made of. (‘‘Wenn das Dorf emeuert wird, muß auch das Umfeld einbezogen werden. Dorf und Landschaft verhalten sich wie Eigelb und Eiweiß; ohne das Eiweiß gibt’s kein Spiegelei, das den hungrigen Betrachter appetitlich und freundlich anschaut.’’) (Magel, 1991). It is obvious that in any planning, village and its surroundings should be integrated and considered as a complete unit.

(1) Protect rural ecology and environment

For the green land, fields, open space, grassland or farmland surrounding the village, we need to know and study the impacts of planning and ecology on local climate and environment. It is important not only to the preservation of rural ecology and environment but also country history research. Protecting rural environment and ecology, village renewal needs to consider environmental factors such as local climate, geography, wind direction and ventilation, when regulating jobs of building, rebuilding and remodeling, establishment and improvement of public facilities. Village renewal also needs to fit with landscape planning, for example, appropriate limits on height, regulations on appearance and structure, in order to preserve rural environment and style.

The concept of ecological compensation from Rhine culture and landscape foundation can give a good example to protect rural ecology and environment in Germany. This summer, we went to Rhine culture and landscape foundation in Germany. The purpose of Rhine culture and landscape foundation is to promote the concept of ecological compensation to improve the ecological conservation of farmlands. Some ecological and landscape specialists and Rhine farmer are members of Rhine culture and landscape foundation, they discuss with villages to plan a project for ecological conservation. The foundation bases on the project to apply money from EU, federal and state government to compensate the farmers to release some field to build green belts. The following is an example to protect skylarks. The skylark is a kind of bird original living on the land with herbs, shrubs and flowers. Since agriculture developments of the land, the numbers of skylark reduce a lot. Because the niche of skylarks is only natural environment and a skylarks cannot fly far away. The specialists of the

foundation taught the farmers preserve a land without culturing any agricultural products for skylark, then to culture herbs, shrubs and flowers as a green belt.

(2) Open park, green land and plaza as well as consider natural environment conservation

Coordinated with village renewal, land consolidation allows for adding plaza, park, green land, children's playground, small sports ground and other recreational facilities, with plants and flowers surrounding the facilities. On the other hand, based on the needs by ecologic preservations, it is necessary to restore the natural rivers in the village to its natural shape and path, build green belt around it for protection of natural ecology. It also needs to be considered to clean up and reuse the deserted land and pond, restore their natural look and vitality.

This summer, we visit Dr. Lorenz Rautenstrauch who holds Geschäftsführer Regionalpark Ballungsraum RheinMain GmbH. Dr. Lorenz Rautenstrauch's company depends on the characteristics of each village to open park, green land and plaza as well as consider natural environmental conservation; the process is to discuss with villagers to design landscape and recreational facilities of regional rural parks for a village. Most of money is applied from EU, federal and state government, and the villagers should find other supports from other place. The duration of the projects usually spends more than 10 years to finish one by one for a village.

(3) Focus on environmental protection and improve village's environment

Besides the aspects mentioned above, environmental protection is also concerned with disposal of polluted water, trash, unwanted items and sewage, and building drainage system. They are not only related to the residents' living quality but also important to rural ecology and environment preservation. Therefore, village renewal needs to take into account planting planning as well for the purpose of creating and guaranteeing a beautiful and healthy living environment in rural village.

Village renewal at Dahlear town is the other good example to focus on environmental protection and improve village's environment. Because of the relatively low farmer income or unemployment in rural area, aging and less population at Dahlear town is the main problem. Dahlear town closes to Eifel National Park, there is a fund supported by EU, federal and state governments to improve the environmental quality of the surrounding of Eifel National Park. Prof. Dr. Theo Kötter and Mayor of Dahlear town spend more than 10 years to apply money from Government to improve public facilities, and working and living environmental quality, it attracts more people to stay or migrate to Dahlea town.

4. Society and culture

In order to build distinctive and beautiful villages, local traditions, historical and cultural

interrelations must be considered in village renewal as well as production, living and ecology (German Federal Territorial Order Law). It can be illustrated as below:

(1) Rural cultural monuments are important cultural assets as well as witness of history

Rural cultural monuments such as border sign, totem, even an old building, a pond and a river all have a history. So village renewal should properly keep the historical relics like old tree, old building and old agricultural tools. In order to reserve and display rural monuments, township government may rent the old buildings to reconstruct it as a simple museum. Its appearance may not have changed but the room would be used to display old rural cultural items, tools and consumer products in daily life and even the drawings showing how antecessors' life was.

(2) To protect rural culture may strengthen rural residents' link to the village

With the economic and social development, the rural living conditions have been improved. In order to encourage the communication between rural residents and reduce the distance, village renewal should concentrate on not only hardware construction but also a nice environment for people to get together and talk. For instance, the chairs set around activity center or plaza can be used for chatting as well as relaxation.

In addition, in order to strengthen the rural inhabitants' tie to the village, the contents of village renewal can be deliberately traced into the past, the history. For example, can we get back the oven people used for bakery as a team? Even though these old stuff most likely no longer has economic value, they do have rural feature, styles and passions.

(3) Village renewal should support the reserve and development of rural culture

For example, in road construction, village development history and changes of residential patterns should be taken into account, as convenience for residents' life should be considered. Roads should therefore be constructed in a way that roads would get around with the curves made by historical buildings or old tree. This way would also make cars slow down and avoid disturbing the quietness and security of the living environment.

When we, having the purpose of keeping antiquities and places of historic interests in mind, repair, renew and maintain the old traditional buildings and historical buildings, we may consider reusing or changing the use of old houses or buildings to give vitality to old buildings with new uses as well as sustain their rustic features.

E. The Implications of German Rural Development for Taiwan

The aims and guiding principles of Sustainability, the tasks and instruments of sustainable rural

development in Germany have already been explained before. It will be interesting what lessons of the German rural development strategy and mechanism could be learned by Taiwan. From the experiences of Germany, it is the right time for Taiwan to set up a new sustainable development policy of rural areas to meet the need of future social economic development. The followings are explanations and suggestions on the policy of sustainable rural development in Taiwan:

a. Strengthening Comprehensive Development Planning in rural Areas to Create Rural Attractiveness in terms of Living and Recreation Value

Rural development is an integrated, comprehensive and long-term process. It needs prudent thinking and research as well as active involvement and total collaboration from villagers and experts(Liu, 2001). It needs the cooperation from related government agencies and appropriate planning to furnish necessary policies gradually. Such will improve agricultural productivity and rural economy. In the meantime, living and working conditions in rural area will be improved, tradition and unique style will be preserved, and natural landscape and ecological environment will be maintained.

b. Setting up Specialized Institution for Rural Development and Planning within Agricultural Authorities

Rural development involves extensive hardware and software construction. It includes agricultural development, public facilities, and society, preservation of natural resources and environment and so on. It is an integrated and a comprehensive planning and construction that need overall supervision and full efforts and support of specialized functions.

Unfortunately, there are no specialized authorities and institution for rural development in Taiwan. It is a defect in Taiwan that there is no unified official institutions for aggregate planning of sustainable rural development.

With the rapid social and economic development, rural village assumes more and more roles. If the problems in the rural areas are not solved, the gap between the urban and the rural will be enlarged and the problems with urban cannot be solved either. Although government has been focused on rural development, there is still no aggregate planning and arrangement by any specialized institutions until now. As a result, it is hard to effectively land on regulations and guiding principles of development policies in order to provide guidance to integrated rural development. Furthermore, insufficient professionals and experts fail to build clear ideology for planning or consider integration and comprehension, which inevitably causes mistakes in investment, waste of resources, and brings negative impact on construction.

Now that we are promoting rural development and construction and seeking “pro-sperous and beautiful farming and fishing villages”, it is necessary to set up an institution or function specialized in rural development. It could centralize the power, recruit various technical professionals needed by

rural development, make arrangements and regulations and devote into integrated and sustainable rural development.

c. Formulate Rural Construction Law, Complete Territorial Planning System and Build the Legislative Status of Rural Planning

As mentioned early, since the jobs and tasks of sustainable rural development are so extensive, rural development should be implemented under the guidance of integrated, comprehensive and long-term rural development program. This is important in order to realize the goals of improving production conditions and living environment, retaining rural features and unique style, and preserving natural resources and environment.

For our current rural development and construction behaviors, there is no law to follow or regulate. Professionals are insufficient; the goals of planning and construction are vague; the concept of integration is not clear; planning and construction are occasional and scattered without any coordination; planning doesn't have any legal power so the results are affected.

Rural development and planning include land consolidation, land reservation for public facilities and buildings, regulation and management of building behaviors, rural recreation business development, natural preservation, environmental protection, planning and construction procedures, participation of rural residents, fund raising and arrangement, cooperation of functions concerned, examination of plans and legislative status and so no. The coverage is so extensive that it requires a legal basis for implementation. Therefore it is important for Taiwan to formulate Rural Construction Law in order to provide a basis for sustainable rural development.

In addition, for the purpose of establishing a legislative status for rural planning, rural development should be integrated into territorial planning system by amending relevant laws and regulations. Rural development shall thus have strategic guidance and integrated and long-term development direction.

d. Coordinating the Instruments of Village Renewal and Land Consolidation Together

Village Renewal refers to various measures conducive to regulate an entire development of village communities in order to improve production conditions and living environment of villagers with existing basis and conditions. It is not only a process of the construction of rural public utilities, renewal of residential buildings, improvement of life and development of economy for satisfying different demands of villagers and the changing society on rural areas, but also an emphasis on rural culture, traditions and features for maintaining a peaceful rural society and their unique styles (Liu, 2001).

Land Consolidation is an important method to improve agricultural structure as well as support the basis agricultural public facility. It is also the most effective way for the enhancement of land utilization, which has merged small and scattered pieces of land into bigger scales for better farming(Liu, 2005). On the other hand, it also serves the goals of encouraging rural development and preserving natural resources and landscape.

Procedures pursuant to the Land Consolidation Act must increasingly embrace the cause of an integrated development of rural areas. If sensible links with the procedures laid down in the Land Consolidation Act, which is applied by analogy in the case of this special ownership rule, are established, a future-oriented new design of rural areas can be achieved. This should also go beyond regulating the distribution of property areas.

Rural planning has to, therefore cover both production fields and villages because agricultural production and life cannot be separated. Therefore, the goals of land consolidation will not only focus on farmland congregation and expansion to improve agricultural production and working conditions, it also has to consider the needs of rural village on how to renew village land rearrangement and how to provide more land for housing and public facility.

Therefore, the enhancement of land consolidation and village renewal must be carefully considered at the initial stage. Land Consolidation and village renewal are two important measures of agricultural and rural development. Re-establishing new data on land-register and the ownership of land in order to promote land utilization in the rural village can be achieved under land consolidation. Village Renewal will not only maintain and improve rural traditional style, landscape, and living environment, but also balance rural and urban development and slow down population outflow. Thus, strengthening the implementation and coordination of Land Consolidation and Village Renewal are the current most important tasks of rural development in Taiwan.

e. Promoting Citizen Participation

Encouraging villagers to take part in discussions about village renewal, communication and exchange of ideas, then considering the opinions, hopes and dreams of villagers in the process of planning are the basis of rural development and are so called “citizen participation”. Citizen’s participation is an important bottom-to-top link with the rural planning process(Liu, 2002). Moreover, villagers should be encouraged to organize themselves into working groups for rural development and planning in order to further put “citizen participation” into effect. The organization’s main aim is to enable rural people to overcome dependencies of all kind, to become actors in the sense of a sustainable development.

“Participation of villagers” is expected to promote interaction and exchange of ideas between villagers and planners of rural development, as well as the ability to hold discussion, so as to enhance the results of villagers’ participation and rural planning. “Though those standing higher can be foresighted, they may not have a very clear understanding of local problems at the grass-root level” (Magel, 1997). The mechanism with coordination right from the grass-root level to the high level is the most important factor for the success of rural development.

Therefore, how to strengthen the local identity and self-worth of the rural people, how to “stimulate people”, empower people gradually to take part in decision making and how to integrate and coordinate village resources with local’s force and plan jointly and implement “citizen participation” in rural planning are the key points to the success of rural planning and must face up to

great challenges of future sustainable rural development in Taiwan.

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