

A COMPREHENSIVE FRAMEWORK PLANNING FOR RECONSTRUCTION AND DEVELOPMENT OF THE KURDISTAN REGION IRAQ

Othman Karim Mohammed

Sulaimanyia Technical College

(Received:19/6/2012 ; Accepted:27/9/2012)

ABSTRACT:- The concept of the case study "comprehensive framework planning" is crucial to consider it encompasses a number of important issues relevant to rebuild and develop the Iraqi Kurdistan– especially the countryside- after miss-failure of the regional government to master the reconstruction and development problem, of which three major interconnected issues that of integration, coordination and sustainable development. It begins to produce connections of integrated governance, spatial integration, and sustainability to those of very local- and regional-based needs. Accordingly, it specifies the root causes the entire accumulated-chronically problems in both rural and urban areas and worked out the related solutions in form of a "frame work planning", within which the interconnected sphere, of Agriculture, industry, environment impacts, housing and related infrastructures integrated.

Then the study assumes that most of the reasons that have led to miss-failure of the regional governments lie in the miss-definition the problem itself that results in the sporadic, disintegrated, disjointed manner of planning actions of institutions that involved directly or indirectly in rehabilitation and development affair of the region. In addition to this, the development problem is still seeing to be as if the provision of housing only.

Keywords: Comprehensive framework planning, Industry, Coordination and Sustainable development.

1. BRIEF INTRODUCTION

The Kurdistan region/Iraq, as the name indicates, follows a federative system. It encompasses three so called Parezgas[♦] (Muhafazat) Arbil , Sulaymaniah, , and Dahuk. It covers a continuous land mass of nearly 406 thousands square kilometers. The total

[♦]) Parezgah: an Kurdish word means governorate

population of the Region in 2003 was 3.910. 329, in 2008 were 4.382.790 in 2009 was 4.698.790" and the current population is estimated to be ca. 5 million inhabitants, the bulk of which (ca. 3 Millions) living in the three mentioned big cities. Thus, the average physiological bearing capacity or demographic density is 10 inhabitants per square kilometers. The statistics data for 2006-2007 indicate that %77.6 of the total population living in cities whereas %22.4 of them is rural inhabitants (see tables 1 and 2). The population growth is estimated to be 3%. Over 60% are younger than 20 years of age. City planning, Transport, water supply, drainage, have traditionally been regarded as the municipal function. There are also strong disparities among municipalities either in terms of territorial extension, population or in the financial and administrative resources by maintain their services. The chief regional institutions with an interest in rehabilitation are the ministry of reconstruction, Investment board, and partly the ministry of transport and ministry of planning with control over financial allocations for development. According to Data's obtained from department of statistics in Sulaimaniyah "2527 villages, 426 Nahias and 5 Qaza's " were destroyed during the period of wars.

Nowadays – after 20 years of establishing the regional government- hardly a destroyed village among 2527 destroyed villages is rebuild or repopulated at an acceptable level.

Table 2 shows clearly that the increase in population in the three major cities given, is ca. 3 times higher than in urban regions, especially in the year 2010. Note that the development by 2011 is higher for which population data is still not available.

Table 3 indicates the unemployment problematic –especially in the rural areas which forced the population, especially the youth to immigrate to the urban areas, especially into three major cities, where the quantity of workplaces is far below the demand side (compare the section: problem definition).

2. RESEARCH PROBLEM

Problem definition

Rehabilitation problem in Iraqi Kurdistan is a complex multidimensional problem, which can be classified into three problem groups as follows:

- A. In the countryside as a whole, the scattered- settlements pattern represent many folded problems both in terms of economic development and the availability of services due to the fact that the planned development of all regional government in Kurdistan region have been concentrated almost on the three big cities (Arbil, Dahuk and Sulaimaniyah) whereas the destroyed country side and rural areas – inclusive local municipalities so

called Qasa's and Nahia's, have been given little attention. As the result the urban-rural unbalance, worsened dramatically leading to exacerbate the situation in terms of over crowding, congestion, housing shortage, lack of infrastructure, and congestion of traffic roads, etc.

- B. Rural-urban migration: (*)The present socio-economical and situation in countryside provides no employment or other income generating possibilities, except a few agricultural or vie-stock based ones –far bellow the level of demand-, so people intend to migrate to the urban centers (especially to the three major big cities Arbil, Sulaimaniyah, and Dahok) in search, not only for employment opportunities, but also to access to higher education, better housing and other social services and facilities that couldn't find in their native home villages. Following an attempt will be made to analyze the problem of internal migration (see Figur1).
- C. The network of urban municipalities, especially between the rural cities on the one side, and between these and the villages and among the villages themselves is primitive and incomplete. Since both of the urban-rural and rural-rural network is deficient and poor, so the provision of workplaces as well as services such as hospitals, secondary schools, cultural facilities almost of low level, and also difficult to improve in areas without urban centers.

3. RESEARCH TARGETS

The target of the research is two folded as follows:

- i. Revealing the interdependences – from the view point of planning- between the agricultural,- industrial and settlement development planning and the overall land development planning on a sustainably basis in the study area.
- ii. Coordination and integration of all planning measures related to the sectors mentioned within a comprehensive framework plan with the aim achieving an urban-rural balance, without burdening the natural environment.

4. MATERIALS AND METHODS

A relative considerable part of materials used to conduct this study is related to the long year lasted experiences, with the problematic of the study area, of the researcher himself. As a

)*(The Phenomenon of rural-urban migration is almost an international Phenomenon. It occurs in almost all countries in the world but with differences in quantities, intensities and the driving forces.

son of a farmer he has lived and worked for more than 20 years in the countryside in the study area. In addition to this, his academic field, since 12 years, supported by his intensive observations and his growing interest to the problematic of the land development increases the broadness of his vision and the bulk of the materials needed to accomplish this task. Thus the study represents a case study and the methods are mostly descriptive-analysis.

5. THEORETICAL AND PLANNING BACKGROUNDS

The theoretical background of the research based on two logically connected concepts, namely the (1) social model [1] and (2) the people-land model, concepts. While the social model concentrated on "planning for equality"[2] regarding to provision of basic needs for all population groups in the region (not only rural but urban sectors too), the population-land or/ Man-Land-model focuses on analyzing of the relationship between the "Man and "Land" (i.e. land as a habitation, object for food-stuff production and for living and recreation purposes, etc.) From economically and planning's standing points, both the land and population appear on both supply and demand sides. Thus, "Man" and "Land" are representing two opposing antagonistic component-forces, on the planning sphere that must brought together in harmony. While the population-component is tending to increase permanently, in contrast to it, the availability of land (land-component) is a fix amount that can't be increased or expanded according to the raise in population or to adjust it to their basic needs; even though it diminishes both quantitative and qualitative (diversification, pollution etc.). With other words, we have always a fewer land available for always more and more people (see fig 2). To orientate development in such away that each settlement (or village) of the countryside as, an integrated unit, can take part in the national division of productions factors on the basis of local natural resources and characteristics, it is necessary to identify the local and regional potentials to assess the local and regional development potentials. But, owing to the fact that natural resources don't distributed evenly over the natural environment so this has a considerable effect on both the choice of settlement location as well on its future expansion (see land classification in section planning measurements). With other words; there is a considerable difference between localities with regard to their physiological bearing capacity or utilization for human needs and purposes. Through adequate planning measurements such as population redirection, redistribution, special measurements according to the prevailing situation coming in question. Fig. 3 explaining this issue by discussing the way's how to

achieve the equilibrium state also on the natural land (compared with the achieving the equilibrium state by a building structure).

6. PLANNING MEASUREMENTS AND DISCUSSIONS:

Planning measurements necessitates looking at the equilibrium state also from the view point of the different geographical realities of the study area which reflected into formulating a different planning measurement to achieve the equilibrium. It is therefore important here to attend this thematic –the land topology-, so to say giving a "suitability certificate" to each zone or land-type, to indicate its potentials for population –needs and planning purposes. Accordingly, all the defined measurements, such as the regional integration plans, rural development plan, definition of framework planning, and the resulting recommendations that follow are based on this land-topology. For the purpose of this study, Kurdistan region can be simply divided or classified into three main land-categories [3, p. 43] and many sub-regions* as follows: (I) The low-land (II) The mountainous region and (III) the transition zone between the two formers. Thus the achievement of the spatial balance depends mainly on the successfulness (1) of the land-use with regard to characteristics of each land category, and (2) the extend of the combined effect of land-uses between the three land categories, with respect to population distribution and resource availability. A glance at fig. 4 reveals into some extend the "suitability index" of the land for human needs and planning purposes, especially the uses among the three main planning and economic spheres or sectors, namely agriculture, industry and the settlement planning or housing - including the network services. With regard to the interdependences between these economical sectors mentioned, the creations of a frame work plan and its basic parts can be represented as the three interrelated and integrated concepts program types (see also fig.5):

- I- A regional wide -livelihood development program,
- II- Elaboration of a community development and services delivery program and
- III- Elaboration of a Kurdistan-wide decent-housing program.

In the following figures (5-9) the elements forming each of these programs are presented in details. Yet there are still two important notes remain to be given: (1) the agriculture and related fields, such as horticulture, gardening, and poultry, take a key role, since it provides a solid base to the industrialization processes described. Here a special attention should be given to the merging issues of farmers. The present situation with small available agricultural

* Sub-regions are relative small areas-compared to the three main regions mentioned- that have the characteristics of one of the three named Land-class sprawled in form of parcels within it.

land – especially in land-type 3 and 2 can't be cultivated in an economical way. It is therefore a quasi- collectivization in agriculture land can be profitable that enable to working on large land areas with modern machinery that produce sufficient agricultural raw materials for either consuming and for future industries. (2) With regard to the issue of settlements; this enjoys unquestionable priority, since their development, are rising in the areas of economic policy and social policy, with equal force. Besides the housing issue, the development of the most needed local and regional services takes a prominence place. Their need emerges, in part, directly from industrial development, as the various rising industries demanded labor of various skills at various grades, which, in turn, will be fulfilled by the extension and improvement of the educational system. Furthermore, with the increase of female labor, a growing proportion of traditional household functions will be industrialized in the form of various public services like child-care, care for the elderly, shopping and catering services, Finally, especially as living standards are going to rise, the improvement of the accessibility to and the quality of medical, cultural, commercial, etc. services would be an articulated public need. The recognition of these needs is led to an increase of resources for settlements development from the state budget.

A glance at table 4 shows that the three main branches pertinent to this research, namely Agriculture, industry, and tourism are far below the necessary level, which justify and give enough evidence to the study presented. In addition to this, the establishments are not related to each other and not coordinated in a correct manner (see table 5). With regard to the items (Municipalities and Working & reconstruction by 26.6% and 13.8% respectively) both items considered to be the most supportive base to former branches. But, owing to the disintegrative manner of projects and allocated funds and the concentration of housing issues in cities on the one hand and the lack of institutional arrangement on the other hand fail the success the end result is the de-facto stated in this study.

Table 5 shows unrealistic and surprised vision; then while the number of food industries is 69 the consumer market will collapse within 24 hours, if the transition routes between Iraqi Kurdistan and the neighbor lades like (Iran, Syria and Turkey) is closed.

7. CONCLUSION

The study claims to have provided an adequate assessment of the accumulated problem facing the Iraqi Kurdistan. So it is possible to draw some conclusion points as follows:

Firstly, the emphasis placed on agricultural and industrial development and also on housing measures as a means of solving the current problem of spatial planning and organization to combat both rural and urban problems. Here the co-operation actions of the related ministries are also reflected. The success of these instructions is proofed through developing a "Land-structure-analogy" scheme, relating to the physiologically bearing capacity (see fig. 3).

Secondly, the study has worked out real planning possibilities that ensure providing the eleven basic needs for the population and the integration planning measures of all the institutions coming in question at the same time. These basic needs are: Water, power, food, medical services, livelihood, industries for manufacturing for domestic market, education; cultural and technology, ecological balance, shelter (housing and land use), mobility (roads, transportation, and communication), sports and recreation" [5 p.283]. The provision of these basic needs is the function of the type of land uses, as explained through land typology and planning measurements, which explains:

- The availability of natural resources (resources for the development of industries, agriculture and recreation) and manpower resources
- The type and availability of connections to the national and regional transport and other infrastructural networks and other services and
- The availability of local building material

At the last it remains to hope that the emerge of a new institutional- and administrative era (since 1991 in Iraqi Kurdisatan and since 2003 in Iraq as a whole) that has sited up a new administrative institutions, and bring about an adequate budget, all these sufficient enough to develop the land in general and reconstruct the destroyed country side in special, as presented in this case study.

REFERENCES

1. Town and Country Planning Association 17 Carlton House Terrac applying inclusive design principles to eco-town development. Eco-towns Inclusive Design Worksheet, Advise to promoters and planners, May 2009.
2. Planning for Equality and Diversity in London, 2009.
3. Othman-Zamdar Karim Mohammed, Ansaetze zu einer Ressourcenorientierten raumordnung mit angepasster siedlungsplanung und sonnen gerechter gebaeude

planung im Irak, dargestellt in den muhafazat Kerkuk, Arbil and Sulaimanyiah.
Dissertation Technical University Berlin, 1991.

4. G. Tyler Miller, JR. President, Earth education and Research. Adjunct professor of Human Ecology: Living in the environment, Principles, Connections and solutions, 2004.
5. National Human Settlements Institutional Arrangements, selected Case study United Nations center for Human Settlements (Habitat) Nairobi, 1997.
6. Journal of Koye University, No. 20, September, 2011.
7. Albonico and Sachs (2002) Development plan for the east Bank and Far East in Alexandria.
8. website/ http://www.pratt.edu/city_regional_planning#.

Table (1): Population distribution by rural and urban for the three main cities (source Ministry of planning, Kurdistan regional government, demographical and economical survey).

	Governorate	Qaza,s and Nahias ¹	Villages
Arbil	50.9	30.7	18.4
Dahuk	25.9	46.5	27.6
Sulaimaniyah	33.4	45.4	21.2
Total/ average	36.7	40.9	22.4

¹ Qaza,s and Nahia,s are Arabic words, mean administrative units with own municipalities smaller than governorate.

**A COMPREHENSIVE FRAMEWORK PLANNING FOR RECONSTRUCTION AND DEVELOPMENT
OF THE KURDISTAN REGION IRAQ**

Table (2): Population development in Kurdistan Region Iraq by urban and rural for three main cities, between 1965-2010 (Source: statistical officials in Sulaimaniyah)

Year	Sulaimaniah		Arbil		Dahuk	
	Urban	Rural	Urban	Rural	Urban	Rural
1965	272036	127732	134151	222142	51751	94083
1977	344859	298343	139175	226806	53727	97905
1987	680857	270866	596118	174321	218710	74594
2010	1526540	270968	627003	175550	227272	75832

Table (3)²: Unemployment rates by urban and rural for three main cities given. (Source: Ministry of planning, Kurdistan regional government, demographical and economical survey)

	Center	Surrounding	Village	Average
Arbil	7.24	16.3	23.9	15.81
Sulaimaniyah	10.45	13.36	11.26	16.69
Dahuk	14.26	18.2	17.51	16.65
Average/ total	16.65	15.95	17.56	16.38

Table (4): Allocations of funds for sectors listed by percentage and year for the whole region (source: Department of statistics / Sulaimaniyah).

sectors	percentage
Agriculture& irrigation	2.2%
Social	0.7%
Communication. & transportation	0.7%
Municipalities	26.6%
Culture	0.7%
electricity	8.6%
tourism	0.8%
finance	0.8%
industry	0.1%
health	7.4%
Working& reconstruction	13.8%
Water resources	0.6%
education	4.0%

² Figures in the table are corrected by researcher owing to a slight miscalculations occurs.

Table (5): Number and name of industry enterprises by percentage up to 2011 (source: Department of statistics / Sulaimaniyah).

<i>Sectors</i>	<i>Number</i>	<i>percentage</i>
Food industries	69	24%
Building industry	190	65%
Plastic industries	14	5%
Metal industry	5	2%
Mixed industry (others)	14	5%
Total	292	100%

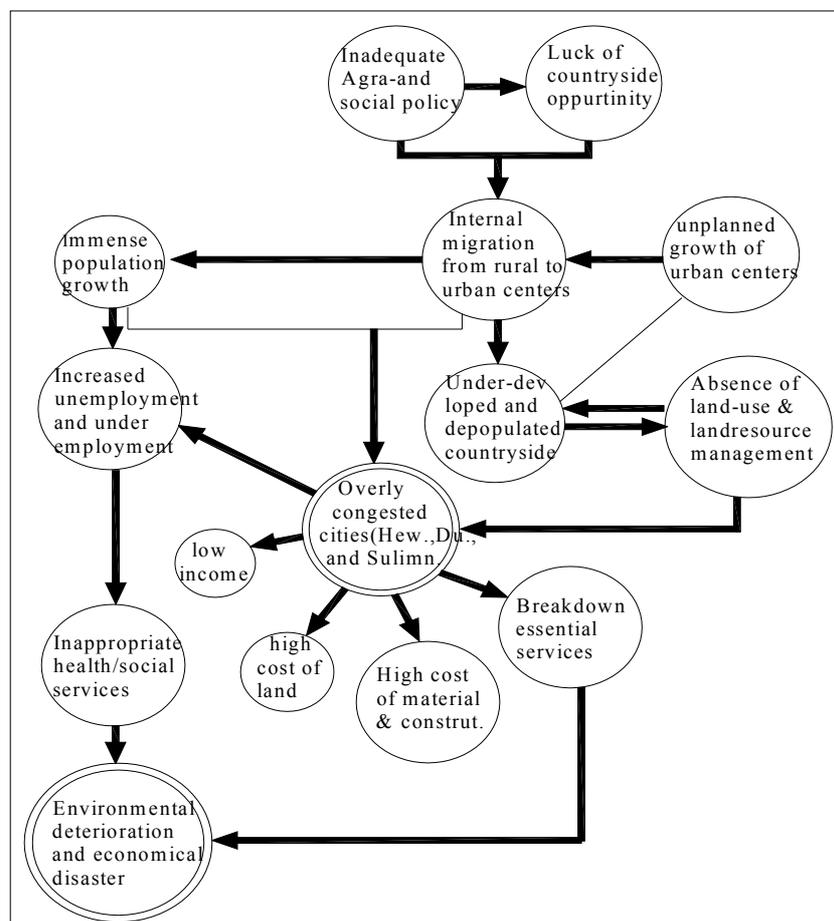


Fig. (1): Flow diagram showing major problem component that causes high out migration from the country side and high concentration in the three main Cities (Arbil, Sulaimania and Dahok) Source: adopted with the necessary altering from [5, P.277].

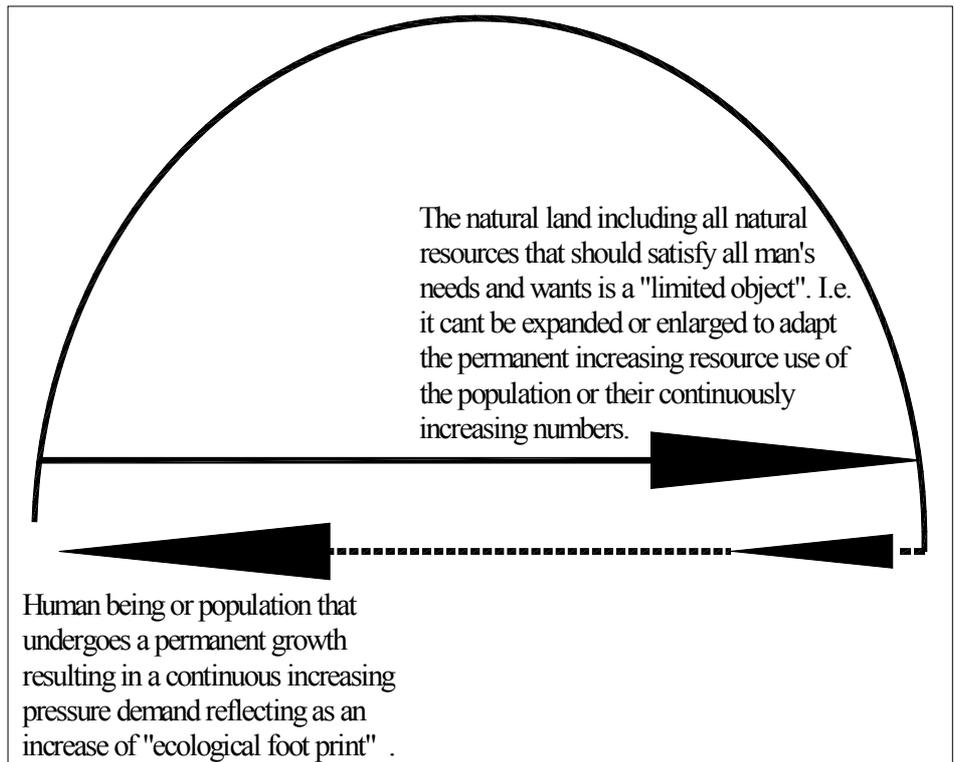


Fig.(2): Human-land relationships: Explaining the unavoidable conflicts between "Man" from one side and the natural land from the other. (Source: Researcher).

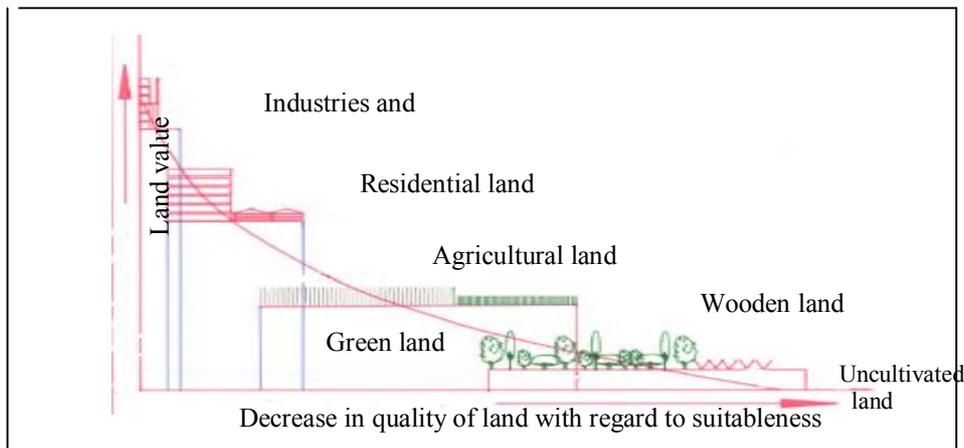


Fig.(3) : Land values and its suitability's for human needs and purposes (According to Barlowe, Source : Reference 3).

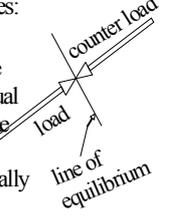
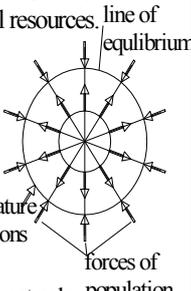
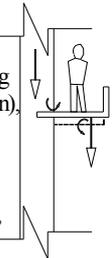
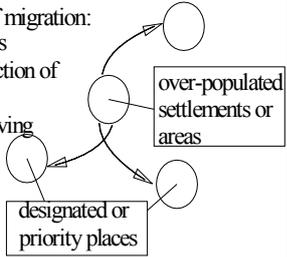
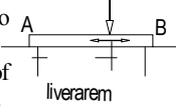
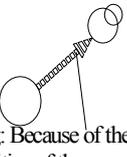
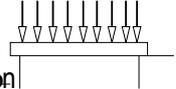
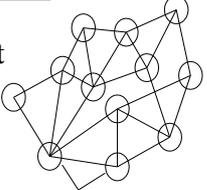
<p>Design of a structure an equilibrium between the loads acting upon a structure and the opposing soil bearing capacity beneath.</p> <p>1- Direct transmission of forces: Either direct tension or direct compression, the action of the force is equilibrated by an equal and opposite force on the same line of action. Characteristics: It is economically with regard to material use Forces and counter forces are equal in magnitude and direction</p> 	<p>Spatial planning to achieve spatial equilibrium between the population demand and available natural resources.</p> <p>1- Producing the spatial equilibrium between the force of migration and capability of area coming in question: The pressure asserted by the population (outer arrows) is received by either the characteristic nature of the region or through governmental interventions (inner arrows) to achieve spatial equilibriums Characteristics: a stable state and acts as development pole. The asserted population pressure is quasi proportional to physiological bearing capacity of the area.</p> 
<p>2- Cantilever: The forces can not be equilibrated directly due to the force that having long detours (the weight of the man), i.e. loads and forces don't fail to coincide. Characteristics: It is a special case, due to the rotation occurs, Hence achieving the equilibrium state is only through adding a counter rotation balance possible.:</p> 	<p>2- Retour or redirection of forces of migration: The pressure asserted by population is elaborately controlled through redirection of the population into "priority areas or designated areas" with the goal achieving the spatial balance</p>  <p>Characteristics: The goal, redirecting the migration into purposed settlements or locations- can be achieved through measures at more than one level</p>
<p>3- Beam action (point load): Creates internal moments due to the forces not being acting on the same line. The magnitude of the resistance moment depends upon the magnitude of the lever arm between the opposing forces. Characteristics: critical case, since a long distance bridging, demands an extra measurement to achieve the equilibrium</p> 	<p>3- Loads resulting from from both population concentration and insufficiently resources and infrastructure, which necessitates actions on both levels: I.e., because of the special peculiarity of the region (either natural or man-made or both) that necessitates such parallel measurements to achieve spatial equilibrium. Characteristics: necessitates intensive and integrated efforts to cope with the equilibriums issues (unsuitable condition)</p>  <p>bridging: Because of the peculiarities of the area coming in question. It is equivalence to the "liver arm"</p>
<p>4- Evenly/uniformly distributed loads as completion of beam action Characteristics: The more the loads are distributed the lighter the supporting structure can be for the same total load.</p> 	<p>4- In accordance with the land potentials and natural endowment population distribution and economical activities to achieve spatial balance . Characteristics: spatial distribution of the population is related to the availability to the forces of production that support them, thus achieving the spatial balance; favorable condition. utilization of natural resources and social infrastructure, thus decreasing the regional disparities.</p>  <p>attempting to distribute the pressure of people and their demands according the natural endowment</p>

Fig.(4): Force/ Load - population and land analogy: It explains the inteded equilibrium's process on the natural land compared with such by a solid(Source: developed by researcher).

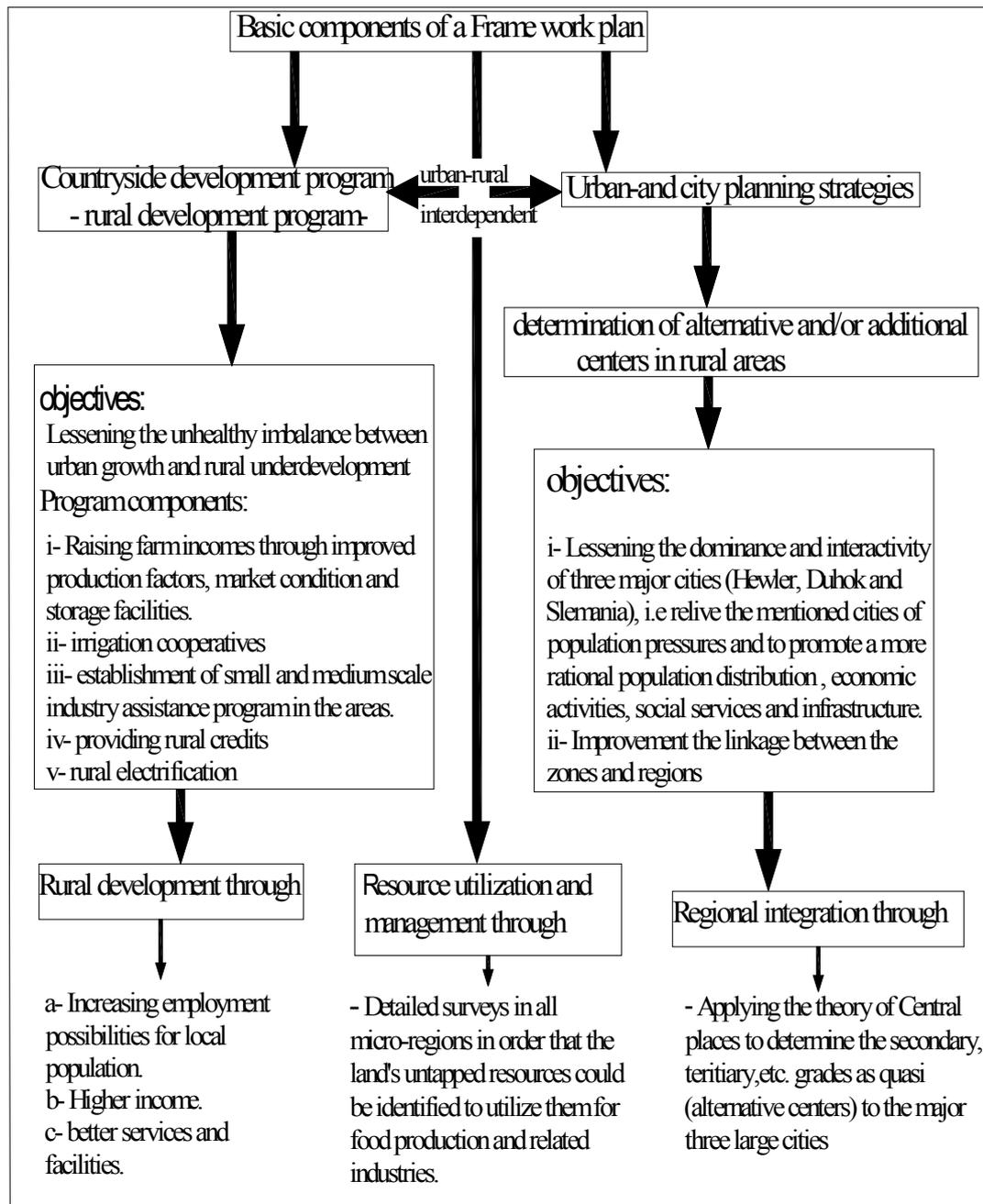


Fig.(5): Basic componenets of the comprehensive frame-work planning. It is considered to be the real planning consequences from the phnomenon high out migration from the countryside and high concentration in the three major cities, see also Fig. 1 (Arbil, Sulaimania and Dahok). (Source: Researcher)

The creation of a regional-wide livelihood development program follows the principle of the spatial allocation of forces of production or resource availability. In this regard the following three development program-sectors, as the consequence of the framework-plan (fig 5), are coming in question:

I- mainly an agrar/industry-cum-livelihood program for producing and providing domestic products to a level of self-sufficiency, (see fig.7)

II- mainly industry-cum-livelihood development programs strategy (see fig. 8)

III- mainly settlement based program, as quasi housing cum-livelihood development program (see fig. 9)

All program parts are aiming to mobilize the local resources and are suited to the geographical realities, natural resources and manpower of the regions.

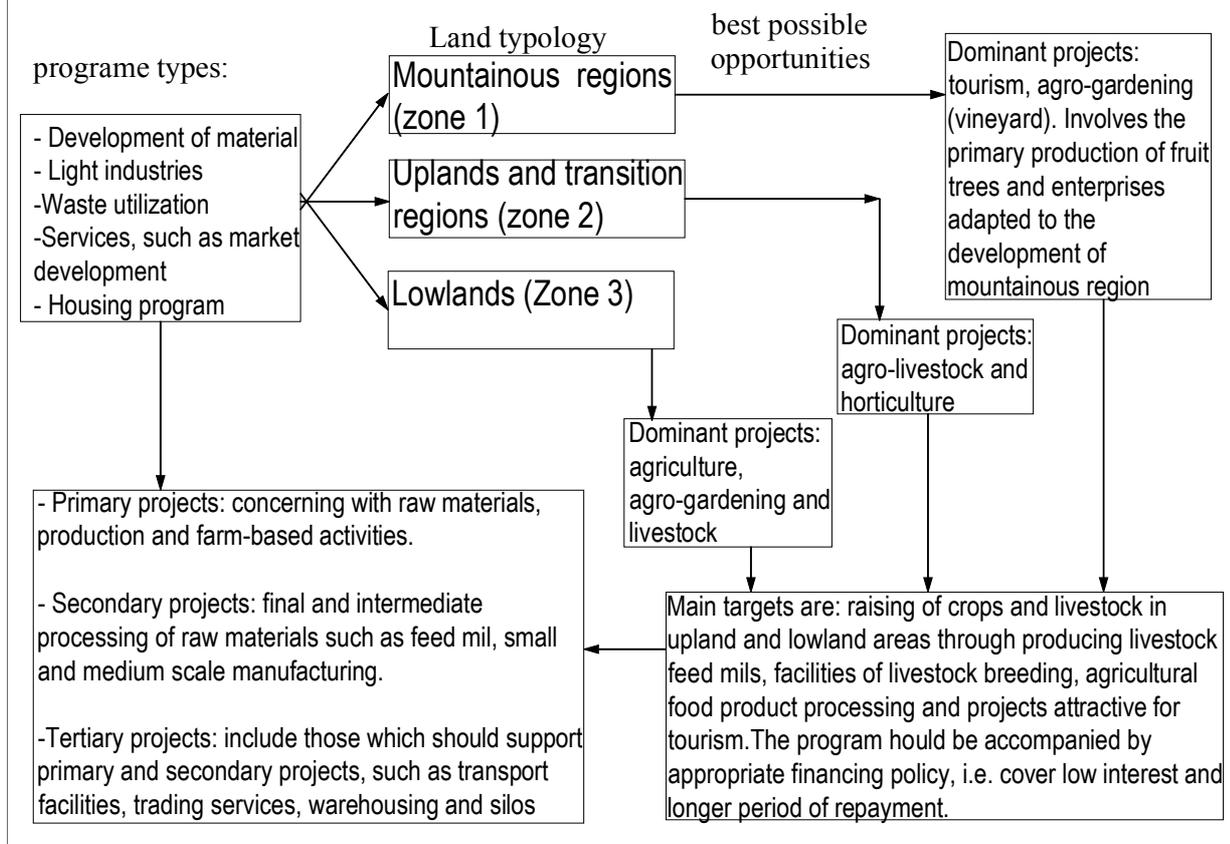


Fig.(6): Basic componenets of livelyhood- and development plan.(Source reraseracher).

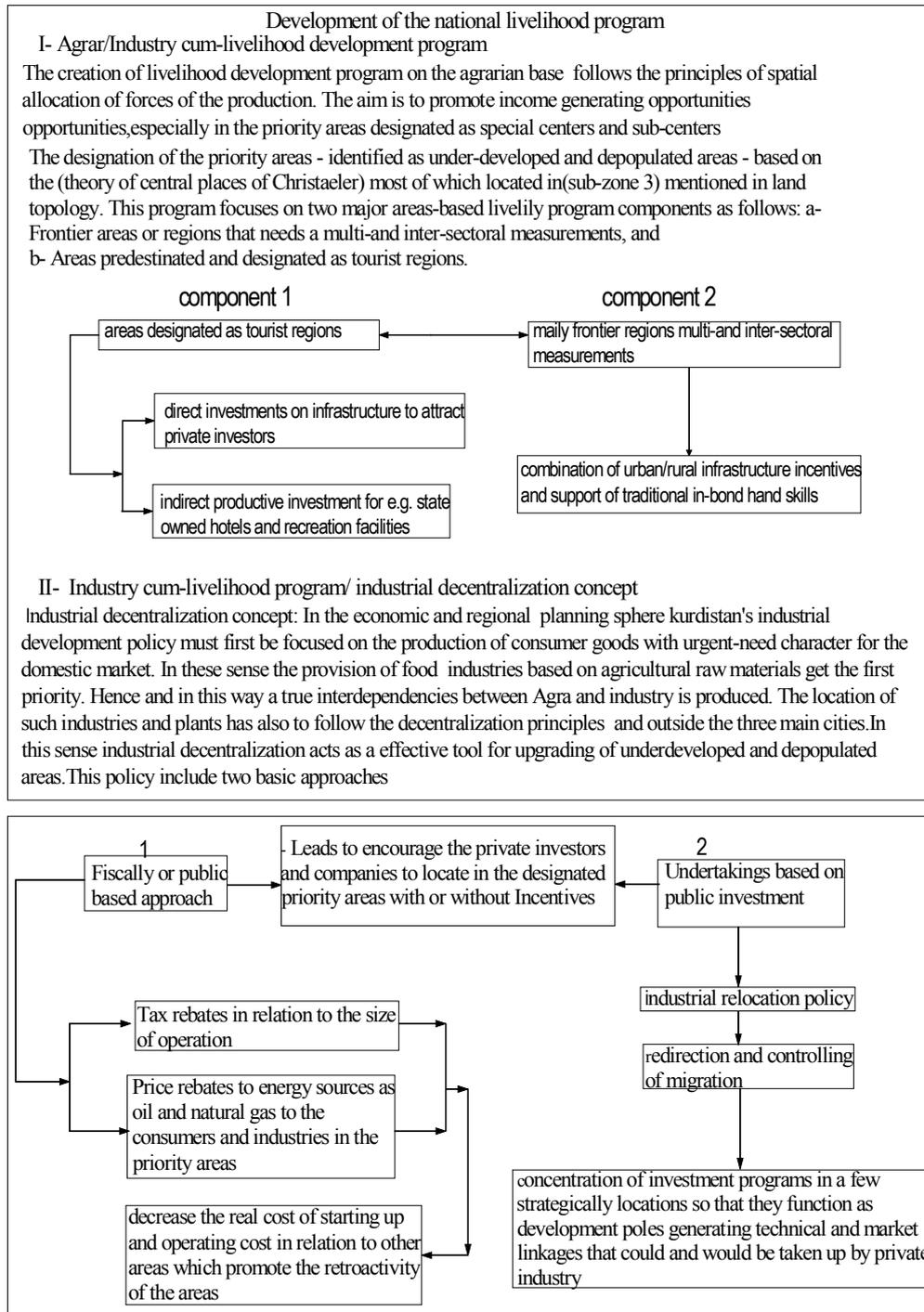


Fig.(7): Planning measurements- Agra-Industry-Interdependences-: Showing the principles of spatial allocation of forces of production: (Source Reasearcher).

Development of a national livelihood program

II-Housing-cum livelihood strategy program

The objectives of this program is two folded: 1- to provide an affordable and *decent house* for every family in Kurdistan region, especially in the country side, either privately built or state sponsored and 2 - activate the domestic market relating to labor, producing and marketing local building materials and manufacturing articles used in construction for houses.

Decent housing: is a structure with at least (a living room, 2 bed room, kitchen, toilet and a bath) provides with basic standards of health, privacy and security built with wide use of local building materials and adapted building technology. The further objectives of this program is to activities more private sector participation in housing construction and thus promoting the economic development on the building sector too. The program should have a regional-wide dimension as illustrated bellow.

The strategies of financing of the decent house should follow low interest and longer period of repayments. A nearly such strategy is currently practices to provide families with a house in both rural and urban areas.

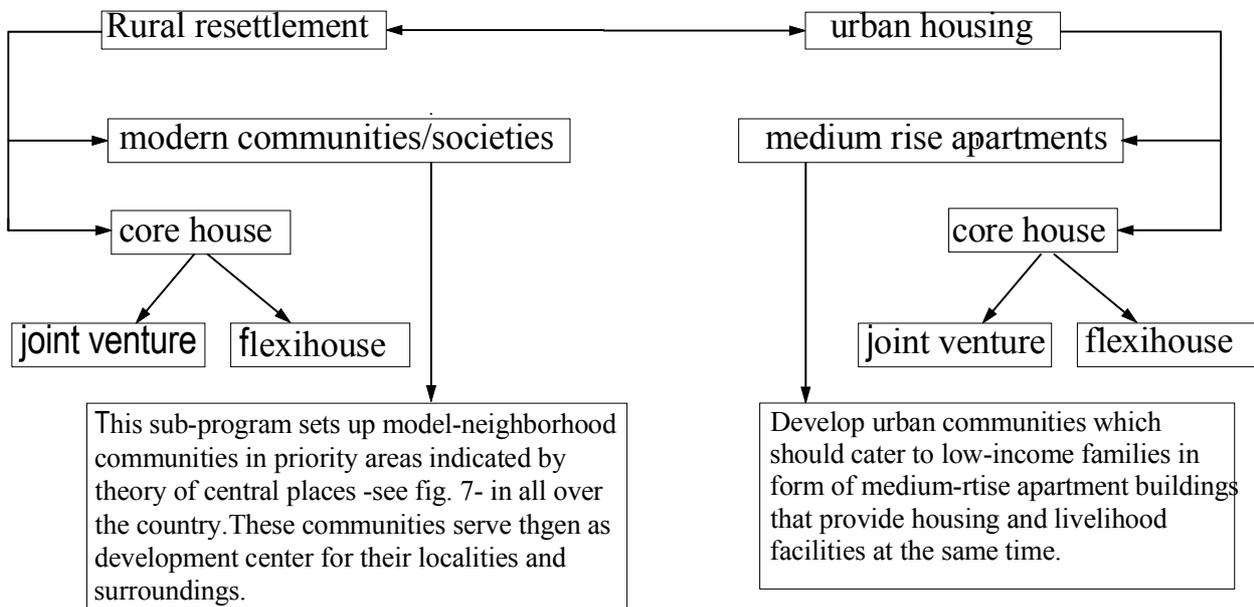


Fig.(8) A: Flow diagram showing Housing-cum-livelihood strategy program.
(Source: Reasearcher)

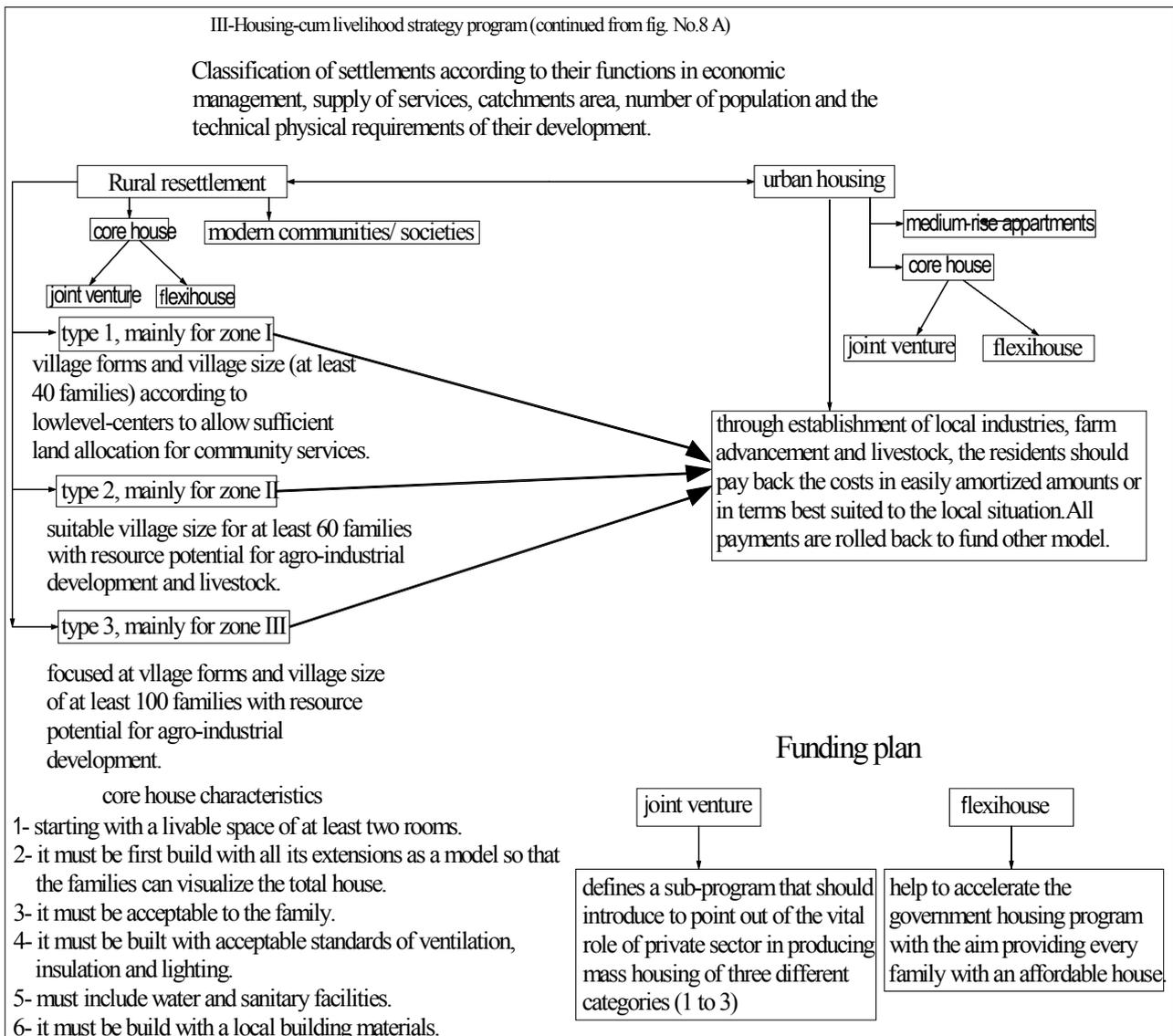
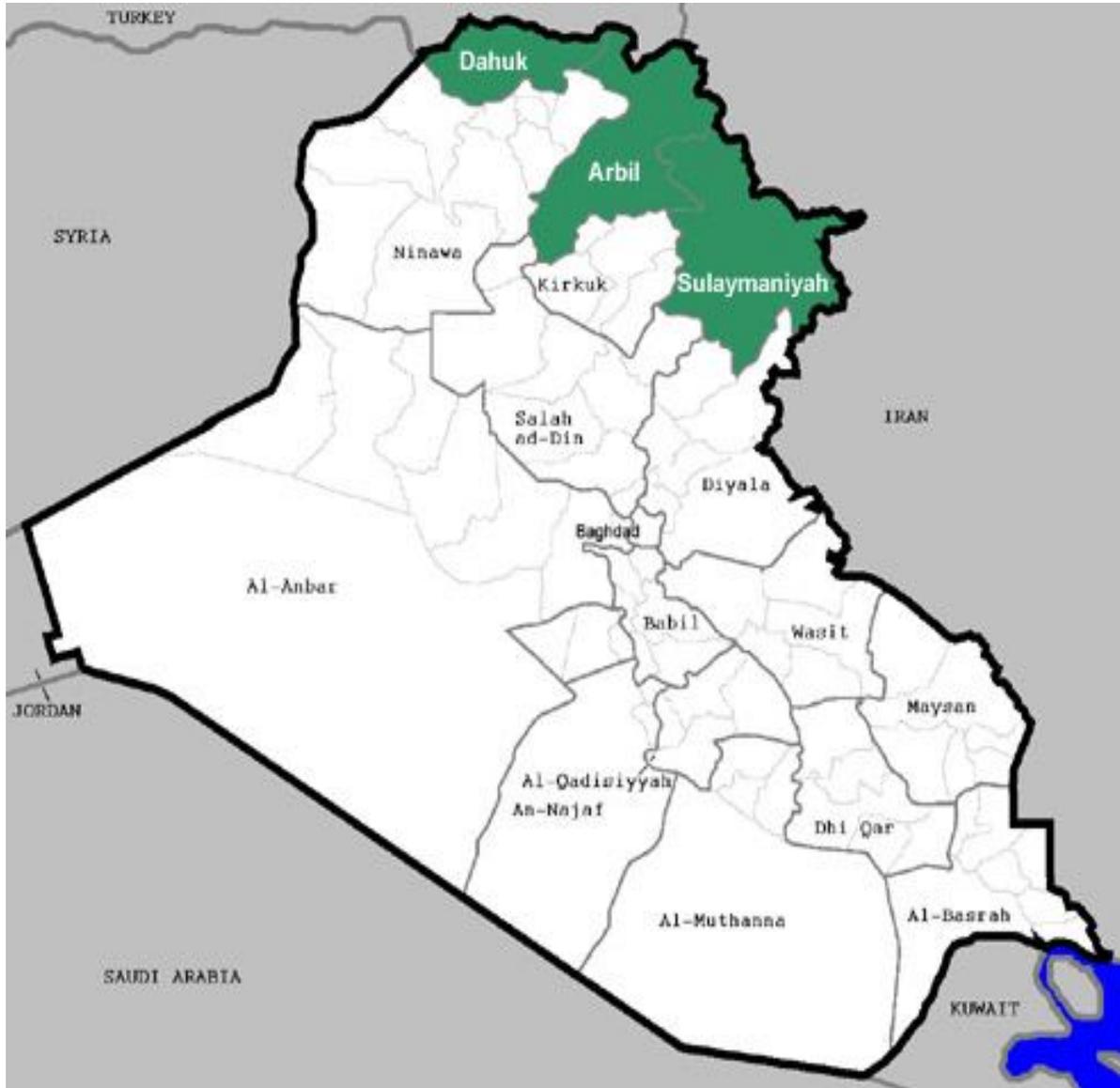


Fig. (8) B: Flow diagram showing Housing-cum-livelihood development program based on the geographical Regions. (Source: Researcher).

**A COMPREHENSIVE FRAMEWORK PLANNING FOR RECONSTRUCTION AND DEVELOPMENT
OF THE KURDISTAN REGION IRAQ**



إطار التخطيط الشامل لإعادة بناء وتطوير مناطق كردستان العراق

عثمان كريم محمد

مدرس

الكلية التقنية – جامعة السليمانية

الخلاصة:

مفهوم الدراسة الحالية "اطر التخطيط الشامل" أمر بالغ الأهمية لكونه يشمل عددا من القضايا الهامة ذات الصلة في اعادة بناء وتطوير مناطق كردستان العراق وخاصة الارياف المتضررة ، لعدم التقدم المطلوب حكومة الاقليم في السيطرة على مشكلة إعادة الإعمار والتنمية ، ومنها ثلاث قضايا رئيسية متداخلة ومترابطة من حيث التنسيق والتكامل والتنمية المستدامة. أن البدء في إنتاج الربط الموضوعي المتكامل اداريا والتخطيط المكاني المتكامل والاستدامة لتلك الاحتياجات المحلية والإقليمية و وفقا لذلك فإنه يحدد كامل الأسباب المتراكمة المزمنة بشكل جذري ان وضعت الحلول المناسبة في إطار "تخطيط العمل" للمشاكل في كل من المناطق الريفية والحضرية الذي تضمن دائرة مترابطة، للزراعة، والصناعة، والبيئة، والإسكان والبنى التحتية ذات الصلة المتكاملة. لذلك تفترض الدراسة أن معظم الأسباب التي أدت إلى فشل الحكومات في المنطقة تكمن في عدم تشخيص المشكلة نفسها التي تؤدي الى تفكك وتفريق وعدم ربط تخطيط الأعمال للمؤسسات التي تشارك بشكل مباشر أو غير مباشر في إعادة التأهيل والتنمية في المنطقة. بالإضافة إلى هذا، فإن المشكلة لا تزال تشهد مازال الخطأ السائد قائماالذي يعتبر ان التنمية هي التوفير السكن فقط.