#### NATIONAL RECONSTRUCTION AND DEVELOPMENT MODEL OF LEBANON

by

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#### ABSTRACT

#### Summary

This paper describes a pilot model, NRDM-2, developed through research conducted at the American University of Beirut sponsored by the Lebanese Government, the harbinger of a package of interactive national, regional, and sectoral models to be used to guide reconstruction and development in Lebanon.

#### Background

Whereas the immediate obligation of Government after Lebanon's 1975-76 Civil War was to provide emergency relief, it was recognized that national planning was essential if the problems of reconstruction and development were to be solved. The Council for Development and Reconstruction (CDR) was established with one of its responsibilities being to prepare a plan that would chart Lebanon's future. In 1977 the CDR began laying the ground-work for development planning by commissioning a series of Agenda Papers on the various sectors of the Lebanese economy and on specific topics of vital importance to strategic planning.

In November 1979 an interdisciplinary group of faculty at the American University of Beirut (AUB) prepared a proposal, "A Systems Approach to Guiding Reconstruction and Development in Lebanon." that outlines a procedure for using System Dynamics models to generate development scenarios for Lebanon as aids for national, regional and sectoral planning. The CDR formally endorsed the AUB proposal and the two organizations decided to involve teams of graduate students and their advisors, first in the development of, and then in experimentation with, a pilot model which would serve both as a training laboratory for them and as a benchmark for future research. The first team was formed in April 1980 and NRDM-1 was the result. The next team was formed at that time and the expanded version of the pilot model, referred to as NRDM-2, is now operational.

#### Description of NRDM-2

NRDM-2 is structured to accommodate three development orientations: 1) resource development, 2) regional development, and 3) sectoral development. Resource components include natural resources, land resources, water resources, and human resources (manpower). Regional development is organized on the basis of rural and urban in NRDM-2. 238

Sectors represented in the model are agriculture, manufacturing, business, infrastructure and government. Obviously, the three orientations overlap. They are also tied together by two quantities most responsible for material growth: 1) population-including the effects of all economic and environmental factors that influence human birth, death, and migration rates, and 2) capital-including the means of producing industrial, service, and agricultural outputs. For the purpose of this paper, NRDM-2 is organized as follows:

- Manufacturing (Eqs. 1-36)
- Business (Eqs. 37-69)
- Infrastructure (Eqs. 70-105)

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- Manpower (Eqs. 106-137)
- Government Service (Eqs. 138-171)
- ~ Agriculture (Eqs. 172-217)
- Population (Eqs. 218-244)
- Utilities (Eqs. 245-254)
- Highways (Eqs. 255-261)
- Housing (Eqs. 262-277)
- Trade-Energy (Eqs. 278-292)
- Socio-Economic Indications (Eqs. 293-306)

These 12 model components correspond to the elements defined by the three rows and four columns in the accompanying causal diagram.

#### Uses of the Model

The structural and parametric assumptions inherent in NRDM-2 were distilled from the series of Agenda Papers obtained by the Council of Development and Reconstruction from many sources both in and out of Lebanese Government. Like NRDM-2, the Agenda Papers, taken collectively, is a model of Lebanon. Each of the Agenda Papers deal with goals involving certain variables and policy interventions involving other variables. To link the goal and policy variables, the authors of the Agenda Papers have implied an understanding of a complex set of intervening relationships, a system. Since the prose of the reports is the model representing the system, the Agenda Papers may be thought of as a verbal model. In contrast, the complex set of intervening relationships between variables in NRDM-2 are expressed by equations and it is referred to as a mathematical model. The verbal model of Lebanon contained in hundreds of pages of Agenda Papers spanning many disciplines can not promote communication and understanding leading to consensus and it is too fuzzy, static, incomplete and imprecise to be used for decision making. Thus, in the briefings, seminars and workshops that evolved in the modeling, system dynamics has become the language of communication.

The objective aspects of Lebanon's development are contained in the relationships between the variables. Using the values of the 435 parameters for 1980, the model calculates the values of the variables at consecutive years over a fifty year period. The subjective aspects of Lebanon's development are dealt with in the way the model is used to generate scenarios. Four basic scenarios investigated are the following: 1) The "No-War" Reference Scenario, 2) The No Reconciliation - No Reconstruction Scenario, 3) The Reconstruction Without Reconciliation Scenario, and 4) The Reconstruction With Reconciliation Scenario. By "No-War" Reference Scenario we mean what could have been expected in Lebanon over the period 1980-2030 if the 1975-76 Civil War had not happened. The term "Reconciliation" refers to the restoration of the government's authority as opposed to the continuation of the present condition of neither peace nor war, but one of tension, intimidation, terror, violence and sporadic liquidations, fostered by militias and armed groups. "Reconstruction" refers to a plan unveiled by the CDR in 1979 that has been incorporated into NRDM-2. Frivate sector needs are reckoned at LL 9 billion (LL=\$.25), LL .8 billion per year for five years starting in 1980 to manufacturing and LL 1.0 billion over five years in the public sector spread among telecommunications, ports and airports, highways, and law income housing.

#### Conclusions

Lebanon is faced with the challenges of national reconstruction, development, and reconciliation. The response to each is a search for funds, a search for facts, and a search for compromise, respectively. The premise upon which this study is based is that reconstruction, development, and reconciliation are not separate technological, economic, and political problems, but that reconstruction and reconciliation are aspects of a single development metaproblem, interpreted in its broadest sense. Funds, facts and compromise are necessary conditions for Lebanon's development; they are not sufficient conditions. Investing funds without impact-sensitive plans, amassing data unsupported by theories, and negotiating in the absence of precise communication can only provide illusions of progress. Overcoming physical deficiencies through reconstruction and reducing the institutional deficiencies inherent in the traditional approaches to development planning.



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by

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#### THE SITUATION

A certain hunter... came one day upon a cave in the mountains, where he found a hollow full of bees' honey. So he took somewhat thereof and carried it to the city, followed by a hunting dog which was dear to him. He stopped at the shop of an oilman and offered him the honey for sale ... As he emptied it that he might see it, a drop fell to the ground, whereon flies flocked to it and a bird swooped down upon the flies... Now the oilman had a cat, which pounced upon the bird, and the hunter's dog sprang upon the cat and killed it; whereupon the oilman ran at the dog and killed it and the hunter in turn sprang upon the oilman and killed him ... Now the oilman was of one village and the hunter of another; and when the people of the two villages heard what had passed, they took arms and rose on one another in anger, and the sword continued to play amongst them until many of the people died... None knows their number, save God Almighty.

Arabian Nights, Night 528

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## 1.1. Introduction

Lebanon, the country is new; Lebanese society is ancient. Lebanon's current geographic frontiers and political institutions were defined in the Constitution of 1926 and, except for slight modifications introduced on the eve of Lebanon's independence in 1943, remain in effect. The social and cultural characteristics of Lebanese society have their origins in the Phoenician, Greco-Roman, Arab, and Ottoman civilizations. The Lebanese state, with an area of ten thousand square kilometers, and Lebanese society, with a resident population of three million persons (and almost an equal number of expatriates), have a significance in the Middle East and, indeed worldwide, out of proportion to their size, owing to their role as a vital link between East and West.

For half a century of statehood, from 1926 to 1975, Lebanon prospered. Lebanon became the banking and commercial center of the Middle East, providing services with an efficiency rare in the developing world. Fine restaurants and hotels welcomed international tourists and businessmen. The country's per capita income, literacy rate, and health standards were among the highest in Afro-Asia. Even its democracy, based on a confessional formula in which the president was a Maronite Christian, the prime minister was a Sunni Moslem, and the chamber would consist of 56 Christians and 43 Moslems, seemed to work even though bearing increasingly less resemblance to the religious composition of the population.

Then in April 1975, a massacre of Palestinian refugees escalated into a civil war, a conflict between Maronites and Moslems, Maronites and other Christians, between right and left ideologies, and between the urban establishment and peasant immigrants. In 1976, Syrian forces invaded the country in order to control the conflict and later became ligitimized as the Arab Deterrent Force. After a massive invasion of the south in 1978 by the Israeli army, a United Nations peace keeping force was stationed in the south. Thus, seemingly without warning, the liberal, democratic, pluralistic edifice of Lebanon was shattered.

Explanations for the sudden reversal of fortunes in Lebanon abound. They range from external conspiracy accusations placing the blame on regional and international forces beyond Lebanon's control to revelations of ideological and religions contradictions inherent in the system.

## 1.2. Civil Strife and Anarchy

The result of the chaos of the last five years has left 75,000 dead and 10,000 physically wounded. The commercial, economic, and social life of Lebanese society exists in the shadow of violence and political uncertainty. Real and potential financial losses to the year 1980 by the Beirut Chamber of Commerce and Industry's tabulation is placed at 21 billion L.L. In terms of psychological effects on the Lebanese people, the post war years have been

even more devastating than the two years of war. Lastly, and most disturbing of all, the current state of anarchy is becoming an accepted way of life.

Today there is not one Lebanon, nor even two, but a land divided into many zones of influence. The area from East Beirut north to Tripoli is dominated by the Falangist Party. From West Beirut south to the Litani River the Palestine Liberation Organization and its Lebanese leftist allies exert control. In Ras Beirut itself a conglomerate of parties friendly to Syria and to the PLO wields authority. South of the Litani River are two zones: a narrow one along the border with Isreal is held by a force of Christian irregulars led by Major Saad Haddad. The area between this narrow strip and the Palestinians is inhabited largely by Shiite Moslems and protected by United Nations' troops. Southeast of Beirut, the Druze leader Walid Junblat, head of the Progressive Socialist, exercises influence within limits. The northern and western parts of the country are held by the Syrian Army which has remained since 1976.

In order to govern, the elected Lebanese administration must work with the Syrians, the Palestinians, the Falangists, UMIFIL, and dozens of other organizations. To further complicate things, many of these forces represent other national interests--Iraq, Iran, Saudi Arabia, Israel, as well as the United States and the Soviet Union.

#### 1.3. Political Alternatives

The most serious impediment to sustained economic recovery and social development is the government's inability to restore its full authority. It appears that three alternatives face Lebanon: (1) perpetuation of the current situation, (2) partition of the country into two or more states, and (3) national reconciliation. The first option means the continuation of a condition of neither peace nor war, but one of tension, intimidation, terror,

violence and sporadic liquidations. Most Lebanese obviously oppose this, but they acquiesce. The absence of an effective central government forces them to rally to militias and armed groups.

The partition option has been strengthened by the political, economic and demographic developments created by the war and by the entrenched positions of the ideologically conflicting groups. This option of course has many variations depending upon the number of states formed and their boundaries. For example, one possibility would be the division of Lebanon into two states, one dominated by Maronites, and the other by Muslims. This would create problems for Christian minorities both within the new Maronite state and throughout the Middle East. The new Arab state could not satisfy both the radical socialist parties that have developed among the Lebanese Muslims and the national aspirations of the Palestinians who now live in Lebanon. The formation of three states so as to give the Palestinians a homeland and the national identity they are fighting for would rob Lebanese Muslims--Sunnis, Shiites and Druze alike--of a substantial portion of the political and economic power they now possess. It is doubtful that both Syria and Israel would agree to the same partition formula even if the fractions within Lebanon could.

The preferred option is to build a united, independent Lebanon. The obstacles to developing a formula for accommodating the interests of all the rival factions engaged in the present division of the country are formidable, indeed. The greatest asset that Lebanon possesses in overcoming these obstacles is its unique heritage as a melting pot of civilizations and, due to the diversity of its sects, a free field for the meeting place of ideas and beliefs in the exercise of tolerance, esteem, and progress.

#### THE APPROACH

Beyond Ghor there was a city. All its inhabitants were blind. A king with his entourage arrived nearby and with his army camped in the desert. He had a mighty elephant, which he used in attack and to increase the people's awe... The populace became anxious to learn about the elephant, and some among this blind community ran to find it. Since they did not know even the form or shape of the elephant, they groped slightlessly, gathering information by touching some part of it. Each thought that he knew something because he could feel a part ... When they returned to their fellow-citizens, eager groups clustered around them, anxious, misguidedly, to learn the truth from those who were themselves astray. They asked about the form, the shape, and the size of the elephant, and they listened to all they were told... The man whose hand had reached an ear said, "It is a large, rough thing, wide and broad like a rug"... One who had felt the trunk said: "I have the real facts about it. It is like a straight and hollow pipe, awful and destructive". One who had felt its feet and legs said: "It is mighty and firm, like a pillar"... Each had felt one part out of many. Each had perceived the whole, wrongly.

Tales of the Dervishes.

#### 2.1. Picking up the Pieces

Rebuilding after any war is a long and difficult undertaking. It is even more difficult when there is political uncertainty and physical insecurity. The first obligation of the Government was to provide emergency relief--feed those who were hungry, find temporary housing for the dispossessed, and treat the many who were sick and injured. As a massive emergency efforts ended, emphasis turned from problems of relief and rehabitation to reconstruction and development.

Governmental response to the consequences of the 1975-76 war has taken two main forms: (1) an attempt to help settle various immediate economic issues such as creditor-debtor relationships and the provision of some funds for reconstruction purposes in the private sector, and (2) the establishment of the institutional framework considered necessary for future socio-economic planning. Recognizing the long-range importance of the latter--forward planning--the Government quickly established its Council for Development and Reconstruction (CDR) in late January 1977, even before full scale relief efforts were underway. The responsibilities given the Council were extensive, but ranking above all others was the obligation to prepare an overall, comprehensive development plan that would chart the direction, scope, and composition of Lebanon's future.

### 2.2. The Agenda Papers

The CDR approached its post-war development planning task by commissioning a series of "Agenda Papers" on the various sectors of the Lebanese economy, and on specific topics of vital importance to strategic planning. Suggested Agenda Paper topics included the following: housing, telecommunications, transport, roads, potable water, Beirut city center, airport, seaport, agriculture, education, health, tourism, industry, repatriation of skills and capital, role of private sector, rural-urban balance, incomes policy, fiscal reform, delivery of social services, administrative reform, culture, energy, manpower, and the transfer of science and technology. The purposes, as expressed in an advisor's memorandum, were as follows: "They will form the framework for a position paper on the Government's planning objectives to be submitted to the Council of Ministers in June, 1978; they will provide a basis for systematic and more detailed studies; and they will assess, after discussions with representative groups the degree of consensus on policy goals".

The Agenda Papers were prepared and submitted to the CDR. The CDR had reason to be grateful for the serious effort put into most of the papers without compensation for the authors. However, while each author has presented a faithful perception of a part of the system we call Lebanon, the

overall picture formed is as misleading as the blindmen of Ghor's description of the elephant. Since the approach to development planning exemplified is not an illogical approach, not even an uncommon one for that matter, the metaphor is less a criticism of the CDR than it is an indictment of the development planning state of the art. What is needed is a way to synthesize many isolated, incomplete perceptions of national development into a complete picture.

### 2.3. Systems Approach

The reconstruction and development of Lebanon requires some form of "systems" approach. Even for simple interventions associated with small projects, the factors that will determine the outcome must be identified, their relationships must be established, and secondary effects anticipated. In Lebanon we are talking about a massive intervention of very large projects with consequences that can easily be overlooked because they are incidental to the projects themselves. The unfortunate experiences of the United States with low income housing and highway programs, and of many countries with irrigation projects and multi purpose dams are familiar examples. Systemic thought is needed.

In November 1979 an interdisciplinary group of faculty of the American University of Beirut (AUB) prepared a proposal, "A Systems Approach to Guiding Reconstruction and Development in Lebanon," that outlines a procedure for using computer simulation models to generate development scenarios for Lebanon as aids for national, regional and sectoral planning. The CDR has formally endorsed the AUB proposal and the two organizations are working together at the administrative level to obtain funding for this comprehensive modeling effort. While there is optimism that the necessary external support is forthcoming, it was recognized that the development of a

dynamic computer-based planning and decision-aiding instrumentality could not be deferred indefinitely in anticipation of donor funding. It was decided to involve teams of students, first in the development of, and then in the experimentation with, a pilot model which would serve both as a training laboratory for them and a benchmark for future research.

## 2.4. Research Contract

In the summer of 1980 on agreement was entered into whereby the Republic of Lebanon, acting through the CDR, would grant AUB a sum previously granted to the CDR by the U.S. Agency for International Development, to develop a pilot model, the harbinger of a proposed package of interactive national, regional, and sectoral computer models to be used for the reconstruction and rehabilitation of Lebanon. The following main guidelines set forth the overall plan of action agreed upon by the parties:

- Phase 1: The development of NRDM (National Reconstruction and Development Model), an operational computerized simulation model of Lebanon.
- Phase 2: The performance of sensitivity analysis and calibration of parameters for three basic scenarios, identified as follows: (1) the "no War" Scenario, (2) the "Reconstruction Plan" Scenario, and (3) the "No Reconstruction Plan" Scenario.
- Phase 3: The preparation of the final report completely documenting the pilot model NRDM to serve as a training manual for CDR personnel and AUB students.

The calendar of program implementation was to be of a flexible nature with the general strategy, taken from the Grant's terms of reference, to include the following steps:

Phase 1: Ending February 1981. The implementation of NRDM on the American University of Beirut IBM 370 Computer and the training of six AUB students in the use of the model who will be available to the CDR for hiring upon their graduation.

- Phase 2: Ending May 1981. The training of an additional 6 to 12 students in the use of the model. These students will be graduate students who will use this project in partial fulfillment of their degree requirements at AUB.
- Phase 3: Ending August 1981. The complete documentation of the model in a final report which can serve us a training manual for CDR astrophics. personnel and AUB students interested in extending their research.

Seven students worked on Phase 1, the first version of the pilot model which came to be referred to as NRDM-1. Under Phase 2 it was possible not only to perform sensitivity and policy analyses but to extend the model, and this improved version is called NRDM-2. Twelve students participated on this phase in partial fulfillment of Master Degrees. Phase 3 is the Final Report which is summarized in this paper.

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He himself, Hermes said, would give Perseus a sword to attack Medusa with, which could not be broken by the Gorgon's scales. This was a wonderful gift and yet, thought Perseus to himself, what use was a sword when the creature to be stuck by it could turn the swordsman into stone before he was within stricking distance. Then Athena took off the shield of polished bronze that covered her breast and held it out to him. "Look into this when you attack her", she said, "and you will be able to see her reflection, and so avoid her deadly power". With these, Perseus sped to the hall of the Gorgons. In silence set two of the sisters,--"

"But a third woman paced about the hall And ever turned her head from wall to wall And moaned aloud, and shreiked in her despair; Because the golden tresses of her hair Were moved by writhing snakes from side to side, That in their writhing oftentimes would glide On to her breast, or shuddering shoulders white; Or, falling down, the hideous things would light Upon her feet, and crawling then would twine Their slimy folds about her ankles fine. This was Medusa.

#### The Classic Myths

### 3.1. Need for a Model

Richard Mason described mankind's pressing problems as possessing a Medusan quality about them. This certainly applies to Lebanon's which are difficult to formulate, dangerous to embrace, and paralyzing to confront. Policy makers are, understandably, reluctant to face the issues head-on. They, as modern day Perseuses, also need shields. Models that cast realistic images of the real world can serve as those shields. A system dynamics model of Lebanon that can be used for guiding reconstruction and development will be described in this section.

# 3.2. Forms of the Model

NRDM-2 is a model of Lebanon. It was distilled from the Agenda Papers which, taken collectively, is also a model of Lebanon. Each of the Agenda Papers deal with goals involving certain variables and policy interventions involving other variables. To link the goal and policy variables, the authors of the Agenda Papers have implied an understanding of a complex set of intervening relationships, a system. Since the prose of the reports is the model representing the system, the Agenda Papers may be thought of as a verbal model. In contrast, the complex set of intervening relationships between variables in NRDM-2 are expressed by equations and it is referred to as a mathematical model. The verbal model of Lebanon contained in hundreds of pages of Agenda papers spanning many disciplines can not promote communication and understanding leading to consensus and it is too fuzzy, static, incomplete and imprecise to be used for decision making. NRDM-2 can be represented on a single page in the form of a "causal diagram" displaying the intervening relationships between goal and policy variables (see Fig. 3.1).

The causal diagram in Fig. 3.1 not only facilitates writing the equations that permit one to perform the arithmetic tasks that will trace Lebanon's development through time (see Appendix A for the model equations and Appendix B for the identification of parameters), but portrays a gestalt-like statement of the Lebanese socio-economic National development system in its own right. The significance of this graphic gestalt in the modeling paradigm is that it takes us out of a communication cul-de-sac providing a common vocabulary and structure of reasoning between individuals, professions, specialists, administrators, and cultures. Because of the sense of fragmentation and isolation conveyed by the Agenda Papers prepared for the CDR, the communicative ability of NRDM-2 is as important as its scientific rigor.





## 3.3. Overview of the Model

NRDM-2 is structured to accommodate three development orientations: (1) resource development, (2) regional development, and (3) sectoral development. Resource components include natural resources, land resources, water resources, and human resources (manpower). Regional development is organized on the basis of rural and urban in NRDM-2. Sectors represented in the model are agriculture, manufacturing, business, infrastructure and government. Obviously, the three orientations overlap. They are also tied together by two quantities most responsible for material growth: (1) population-including the effects of all economic and environmental factors that influence human birth, death, and migration rates, and (2) capital--including the means of producing industrial, service, and agricultural outputs. For the purpose of this report, NRDM-2 is organized as follows:

- Manufacturing (Eqs. 1-36)
  Business (Eqs. 37-69)
  Infrastructure (Eqs. 70-105)
  Manpower (Eqs. 106-137)
  Government Services (Eqs. 138-171)
  Agriculture (Eqs. 172-217)
  Population (Eqs. 218-244)
  Utilities (Eqs. 245-254)
  Highways (Eqs. 255-261)
  Housing (Eqs. 262-277)
  Trade-Energy (Eqs. 278-292)
- Socio-Economic Indicators (Eqs. 293-306)

Many of the sectors in NRDM-2 can be thought of as elements in a national account. The national account is concerned with the measure of aggregate product originating within some geographical area, in this case Lebanon, so that a picture of economic performance can be gained.

The end result of economic activity is the production of goods and services and the distribution of those goods and services to the members of society. The most comprehensive measure of national output is the gross

national product, usually abbreviated GNP. It is the value of all goods and services produced annually in the nation. The task of estimating the GNP, however, is not merely adding up the value of all output because that would be double-counting. In NRDM-2 the "value-added" method is used because in a complex society like Lebanon, there are very few final outputs produced solely by one industry. The final value of any product is created by a large number of different industries; each firm buys materials or supplies from other firms, processes or transports them, and thus adds to their value.

There are four major components of GNP, each representing a final use of GNP: consumption, investment, government purchases, and net exports. Investment refers to that portion of the final output which takes the form of additions to or replacements of capital. Government purchases of goods and services are a second component of GNP. In addition, government makes other expenditures, "transfer payments", which do not represent the purchase of output and are consequently excluded from GNP. Consumption refers to the portion of nation's output devoted to meeting consumer wants. Net exports, exports minus imports of goods and services, are a final use of GNP and must be included in our total. In NRDM-2, three of the four major components are grouped under the heading of GDP for gross domestic product: consumption, investment, and government purchases. It is evident, then, that the GNP is the sum of the GDP plus net exports in the model.

For purposes of national income analysis, GNP statistics are subdivided into mutually exclusive, collectively exhaustive categories. The most commonly used scheme for subdivision is that based on the International Standard Industrial Classification (ISIC). The nine major ISIC categories are listed in Table 3.1.

Table	3.1 International Standard Industrial Classification
Code	Classification and Description
1	Agriculture, hunting, forestry, and fishing
2	Mining and Quarrying
3	Manufacturing
4	Electricity, gas, and water
5	Construction
6	Wholesale and retail trade, restaurants, and hotels
7	Transport, storage, and communication
8	Financing, insurance, real estate, and business services
9	Community, social, and personal services

Each of the nine ISIC economic output divisions in Table 3.1 is associated with a particular capital stock in NRDM-2. In our model the agriculture sector provides most of the output in the first ISIC division. The NRDM-2 manufacturing capital stock provides the output in ISIC divisions 2 and 3. Business capital in the model is associated with the activities listed under ISIC divisions 6 and 8. The infrastructure sector in the model corresponds to ISIC divisions 4 and 7, and the government services sector to ISIC division 9.

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No. 22 소설 방송에 관할다.

" and t understand you", said Alice. "it's and the dreadfully confusing<sup>1</sup>2" "That's the effect of living backward, "the Queen said kindly; "it always makes one a little giddy at first..."

"Living Backward'2" Alice repeated in great transferre as to state astonishment. "I never heard of such a thing".

there's one great advantage in it, that one's memory works both ways, "the Queen continued, ignoring Alice's interruption. and accept of each comparison

"The sure mine only works one way," Alice remarked. "I can't remember things before they happen".

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# 4.1. Introduction

法法法法 法的道法 Most development planners approach the task of designing the future และสุนาร์ (1997) เป็นสมัยมายายุ และการสุนาร์ ยุ with the naivete of Alice in Wonderland. As we study the dialogue between Alice and the White Queen, we begin to understand the Queen's lack of enthusiasm for a memory "that only works backward". No less an authority than Webster vindicates her in his definition of memory as "the power or process of reproducing what has been learned; the persistent modification of art. 1261. structure or behavior resulting from activity or experience". In this section we shall discuss the utilization of a technique called "scenario analysis" which permits one to "learn" and to gain "experience" from the future in much the same manner as one does from the past.

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## 4.2. Generation of Scenarios

Since In the research we generate three variants of possible future configurations of Lebanese development activity, or three "scenarios". Scenarios are attempts to describe future changes in the state or condition

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of a social system--in this case, Lebanon. One of the scenarios has been dubbed the "No-War" Scenario. In this scenario the Lebanese economy is assumed to preserve in the future the pattern that existed in 1975 before the Civil War. The other two scenarios take conditions as they existed in 1980 as the initial state of the system with the difference between the two being whether or not there is a formal reconstruction effort. These are referred to as the "Reconstruction Plan" Scenario and the "No Reconstruction Plan" Scenario.

The three scenarios which cover a fifty year period starting from the present are expressed graphically to facilitate comparison. Specifically, the more than 300 variables of NRDM-2 have been weighted and condensed into 31 indicators representing fourteen socio-economic domains: human resources, wealth, distribution of wealth, government and politics, health, education, housing, land resources, agriculture and food, communications, transportation water resources, energy resources, and pollution. The 31 indicators, in turn, are weighted and combined linearly to produce an overall measure of the quality of life.

The development indicators selected for aiding in scenario analysis are summarized in Table 4.1. In Table 4.2 the values assigned to parameters in NRDM-2's equations in order to generate the three scenarios are given. For example, the values in the first column are based on the CDR five-year plan that was unveiled in 1979. This plan has been interpreted as follows. Private sector needs are reckoned at 9 billion Lebanese pounds, 0.8 billion per year for five years to manufacturing (Equation 26) and 1.0 billion per year for five years to business (Equation 59). It includes 10 billion Lebanese pounds over five years in the public sector spread among telecommunications (Equation 92), ports and airports (Equation 98), highways

INDICATOR AND CATEGORY	VARIABLE	EQ. NO.	FIG. N
HUMAN RESOURCES			and an and a second sec
National Population	NP	220	4.2
Percentage of Population Urban	POPU	370	4.3
Annual Natural Population Increase	ANPI	308	4.4
Percentage of Population of Working Age	PPWA	309	4.5
WEALTH SAME AND A CONTRACT	1828 en 1927 e	an a	
Gross National Product	GNP	291	4.6
National Per Capita Income	NPCI	222	4.7
Population Density	POPDEN	310	4.8
Trade Balance Percentage of GNP	TBPGNP	311	4.9
DISTRIBUTION OF WEALTH			
Percentage Unemployment	PUNEM	312	4.1
Relative Rural Income	RRI	225	4.1
GOVERNMENT AND POLITICS			
Budget as Percentage of GNP	BPGNP	315	4.1
Govt. Transfer Payments as % of GNP	TPPGNP	316	4.1
HEAT.TH		•=•	
Population Per Physician	PPP	205	4 1/
Percentage Health Subsidized	PHSUB	317	4.1
FDUCATION	LUDOD	JT /	· · · ·
Adult Idtorgon	ለተ ጥ	302	6 14
Demonstrate Education Subsidized	DECIIB	310	4.1
POHETHO	r egod	772	4•⊥/ 5
Avenues No. Poors Por Porson	ANTODD	200	λ τ (
Average No. ROOMS FEF FEISON	ANREE	200	4.1C
I AND DECOURCES	עטע	200	4.13
LAND REDURCES	TIDODD	201	4.00
Urban Population Density	UPUPD ARGIZ	221	4.20
Average farm Size	AFSIL	322	4.21
AGRICULTURE AND FUOD	TDCC		,
rood rer Capita	FPCC	323	4.22
Percentage Ag. Land Irrigated	PALL	324	4.2
COMMUNICATIONS	and an any day		
Television Sets Per Capita	TSPC	325	4.24
Cinema Attendance Per Capita	CAPC	326	4.25
TRANSPORTATION			
Motor Vehicles Per Capita	MVPC	297	4.26
Highway Density	HWYDEN	328	4.27
WATER RESOURCES			
Surface Water Impoundment Capacity Per	SWICPC	329	4.28
Water Demand Supply Ratio	WDSR	82	4.29
ENERGY RESOURCES			
Per Capita Energy Consumption	PCEC	296	4.30
Fuel Imports as Percentage of GNP	FIPGNP	330	4.31
ENVIRONMENT	- -		
Pollution Ratio	POLR	17	4.32
Ouality of Life	OOL	331	4.33

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		Parameter Values for Three Scenarios				
		Reconstruction	No. Reconstruction	No 1975-76		
Eq.No.	Parameter	Plan	Plan	Civil War		
• .						
1.2	MCN	4.8E9	4.8E9	8.0E9		
25.1	FMPIX	.40	.20	.40		
25.2	FMPIY	.45	.20	.40		
25.3	RECPEF	5.	50.	0		
26.1	RIMC	.8E9	0	0		
27.2	NMN	3000	3000	6000		
28.2	DMN	3000	3000	0		
35.1	MRP	600	60	0		
37.2	BCN	18.0E9	18.0E9	24.0E9		
58.1	FBPIX	.35	.25	.35		
58.2	FBPIY	.40	.25	.35		
59.1	RIBC	1.0E9	0	0		
60.2	NBN	20000	20000	30000		
61.2	DBN	10000	10000	0		
68.1	BRP	2000	200	0		
70.2	EUCN	1.0E9	1.0E9	1.2E9		
78.2	WJCN	1.0E9	1.0E9	1.2E9		
86.2	TCCN	.5E9	.5E9	1.5E9		
92.1	RITCC	.44E9	0	0		
93.2	ITEN	1.0E9	1.0E9	1.5E9		
98.1	RITTC	.1826E9	0	0		
99.2	I.TFN	3.0E9	3.0E9	4.5E9		
104.1	RTLTC	485E9	0	0		
108.1	FMPGX	.05	.03	.05		
108.2	FMPGY	.05	.03	.05		
112.1	FBPGX	.10	.05	.10		
169 1	RTLTHC	.10	.05	.10		
274 1	RNPCIN	89459	0	0		
255 2	HLKN	3.6	3.6	4.8		
258 1	UCOMT	1 2 F 4	1.2F4	1.85%		
250.1	UTDN	9/ 9/1/2/10/40	9/ 9/1/2/10/40	9/9/9/1/8/25		
202.2	I TON	75F6	75F6	1 0F6		
203.2	DCCMT	7/8/1 2/2 5/5/10	7/8/1 2/2 5/5/10	7/ 8/1/2///7		
210.1	MVN	250000	250000	300000		
261.2	FMOCC	20000	05	Δ50000 Δ5		
60 I	FROGG	105	10	10		
07.1	t DUGC	• T U J	• 10	• 7.6		

TABLE 4.2 PARAMETER SUMMARY FOR SCENARIO ANALYSIS

(Equation 1040, and low-income housing (Equat	tion 169).	For the pur	pose of
this study it was assumed that private sector	needs we	re supplied b	y loans
which are repaid to Government (Equations 36	and 69) w	hich in turn	invests
the money in irrigation (see Equation 217).		270 538	
4. Wyserstage of Starpic transformer Starpics		uning double	
	- compared	astus gevero	pment
indicators is illustrated in Figs. 4.7, 4.11,	4.32 and	4.33.	
A The Substationer, Backstory			
() - เชื่อง โดยสะดัด เป็นแม่มีสุขมาย เป็นสูงกับสุขมาย ผู้สุขาว มีขึ้อ ได้แก่ โดยการสุขาร์สุขมาย คนุ่างหมาย เป็นสูงกับสุขภาย ผู้สุขาว มีขึ้อ ได้แก่ เป็นการสุขาร์สุขมาย คนุ่างหมาย เป็นสูงการสุขาว มีข้อ เป็นการสุขาว เป็นการสุขาร์สุขมาย คนุ่างหมาย เป็นสูงการสุขาว มีข้อ เป็นการสุขาว เป็นการสุขาร์สุขมาย เป็นสูงการสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นการสุขาว เป็นการสุขาว เป็นสูงการสุขาว มีข้อ เป็นสุขาว มีสุขาว มีข้อ เป็นการสุขาว มีข้อ เป็นการสุขาว เป็นการสุขาว มีข้อ เป็นสูงการสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นการสุขาว มีข้อ เป็นการสุขาว มีข้อ เป็นการสุขาว มีข้อ เป็นการสุขาว มีข้อ เป็นการสุขาว มีข้อ เป็นการสุขาว เป็นการสุขาว มีข้อ เป็นสูงการสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นการสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นการสุขาว มีข้อ เป็นการสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็น เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสิขาว มีข้อ เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสิขาว มีข้อ เป็นสิขาว มีข้อ เป็นสุขาว มีข้อ เป็นสิขาว เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสุขาว มีข้อ เป็นสิขาว มีข้อ เป็นสิขาว มีข้อ เป็นสิขาว มีข้อ เป็นสิขาว มีข้อ เป็นสิขาว เป็นสิขาว มีข้อ เป็นสิขาว มีข้อ	1.501.6399 - 1	i dian	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
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NRDM-2 (CASE 4)



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3 SCENARIOS IN TERMS OF GOL-QUALITY OF LIFE

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FIG. 4.33

I am not ignorant that many have been and are of the opinion that human affairs are so governed by fortune and God, that men cannot alter them by any prudence of theirs, and indeed have no remedy against them; and for their reason have come to think that it is worth while to labor much about anything, but that they must leave everything to be determined by chance.

I think it may be the case that Fortune is the mistress of one half our actions and yet leaves the control of the other half, or a little less, to ourselves. And I would liken her to one of those wild torrents which, when angry, overflow the plains, sweep away trees and houses, and carry off soil from one bank to throw it down upon the other. Every one flees before them, and yields to their fury without the least power to resist. And yet, though this be their nature, it does not follow that in seasons of fair weather, men cannot, by constructing weirs and moles, take such precautions as will cause them when again in flood to pass off by some artificial channel, or at least prevent their course from being so uncontrolled and destructive.

The Prince

## 5.1. Introduction

On April 28, 1981 Isreali jet fighters shot down two Syrain helicopters over Lebanon. In response Syria brought up lethal Soviet-made SA-6 surface-to-air missiles to counter the threat. As Syria and Isreal braced for a violent showdown that could bring war to the region once again--and one, moreover, that conceivably could drag in the superpowers--the U.S. and the Soviet Union moved swiftly to restrain their respective allies. Caught in the middle, as always, battered Lebanon anxiously waited for others to settle its fate. Nothing could underscore more dramatically the flimsiness of Lebanon's grip on its own destiny.

We have introduced this section with one of Niccolo Machiavelli's admonitions to his Prince. The message is clear: Fortune helps those who help themselves. Dr. Salim El-Hoss as Prince Minister of Lebanon echoed this sentiment in an eloquent, inspiring address at the 110th Commencement of the American University of Beirut:

"...we should not cajole ourselves into believing that a conspiracy was the sole cause of our crisis, and be blinded by it to the existence of other factors. If we were to do this, we would deserve the accusation of those who say that the Lebanese crisis has produced many lessons, but it has failed to produce those who can heed them. Let us then pause a while and give a little thought to our affairs. In the days when we were at the apogee of our fortune we were not superior to other, any more than today, in our decline, we are more abject than others. Yesterday, the intoxication of success prevented us from perceiving our shortcomings and from foreseeing the pitfalls that were lying in wait for us; today, the humiliation of our decline should not similarly prevent us from seeing those virtues that are ours and from striving to regain our health and well-being."

# 5.2. Knowledge and Development

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Of all the problems of human affairs, those associated with national development are the most perplexing. The evolution of theories of socio-economic development is a fascinating story of intellectual inventiveness and ideological self-delusion. Why is it that there aren't significant correlations between development and mild climatic environments or between development and a abundance of natural resources? It is evident that some countries have "played their cards" better than others.

Development is a metaproblem--one that crosses disciplines, is value-ridden, and requires trade-offs between competitive ends. In combating the development metproblem, there is no weapon more potent than knowledge, no

panacea more effective than the understanding that knowledge can bring. But what kind of knowledge?

Consider the evolution of civilization: In primitive societies, the existing systems were these arising in nature and their characteristics were accepted as devine and as beyond man's comprehensive and control. As industrial societies emerged, socio-economic systems became so complex and their behavior so confusing that they were attributed to random, irrational causes. Development was a matter of luck, and luck was looked on as a loving mother with too many children to attend. Gradually over the past century it has become clear that a barrier to achieving development is the fragmentation of knowledge and our inability to structure it.

Whereas there has been exponential growth in fundamental knowledge of the environment and society, there is a scarcity of knowledge concerning the design and operation of the systems using this knowledge. While human capacities to shape the environment and society are rapidly increasing, policymaking capabilities to use these capacities are not. For example, we can create a gene in a test tube reflecting our understanding of the basic secrets of the life process, while at the same time we cannot handle the population explosion, a manifestation of the most primitive biological urge. It is the growing gulf between the capacity to control the environment and society, on one hand, and the knowledge of how to design and operate our societal meta-control systems so they can use these capacities, on the other hand, which constitutes the major obstacle to development.

## 5.3. Policy Experiments

Armed with the knowledge that we have in NRDM-2 the capability to observe the time paths of hundreds of socio-economic variables over the next 50 years of Lebanon's future, we are about to do what all development

planners would like to be able to do: to see what the next 50 years would look like if any of several variations in the Reconstruction Plan Scenario are substituted. This will be illustrated by testing two hypothetical policies identified as a Taxation Policy and a Zoning Policy.

Taxation Policy. Traditionally Lebanon has tended to pursue a policy favorable to private interests--laissez faire. But if social justice is to accompany physical and economic reconstruction, it is doubtful that needed social programs in the future can be undertaken without a budget fueled by taxes. To show how we use NRDM-2 to experiment with various tax policies, two computer cards were changed and a simulation run was made. Specifically, the parameter FMPGX, the Fraction of Manufacturing Product to Government after Reconstruction which is Equation 108.1, was made equal to .10, and the parameter FBPGX, the Fraction of Business Product to Government after Reconstruction which is Equation 112.1, was made equal to .15. Recall from Table 4.2 that under the basic Reconstruction Plan Scenario the values used for these two parameters were FMPGX = .05 and FBPGX = .10. Referring to Table 4.2, note that the two fractions during the period of reconstruction would remain .05 and .10 respectively. Thus, the tax increase would take effect after the formal reconstruction period. One result of this computer run is presented in Figure 5.1. To facilitate evaluation and comparison to the basic Reconstruction Plan Scenario of this modified plan, some of the same development indicators employed for comparison of the three principal scenarios in Table 4.1 are used.

Zoning Policy. Zoning decisions determine the supply of land available for various socio-economic activities. In Lebanon zoning is an unexploited policy instrument. The amount of land and its use influence such

FIG.5.1

# MODIFIED RECONSTRUCTION PLAN SCENARIO BASED ON TAXATION POLICY

NPCI = 0 FOR BASIC PLAN  $\xi$  ---- FOR MODIFIED PLAN QOL = \* FOR MODIFIED PLAN  $\xi$  ----- FOR BASIC PLAN



NRDM-2 (CASE 4A)

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things as the present and future housing market, population mix, economic growth, employment conditions, and environmental quality. Since a country must live with its zoning decisions for decades, local decisions affecting land use should be made in the context of the total national system. Land zoning policy tests afford a basis for accomplishing this. To illustrate this capability, four parameters in the model were changed as indicated below:

				gar an		n an	All All Artes
Parameter Name		Des	crip	tion	Equation	Normal Value (ha)	Present Value (ha)
ende <u>n e</u> sterne <sup>1</sup>	_						
LZM	Land	Zoned	for	Manufacturing	31.2	4500	6000
LZB	Land	Zoned	for	Business	64.2	8000	10000
LZH	Land	Zoned	for	Highways	256.2	1500	2000
LZD	Land	Zoned	for	Dwellings	269.2	10000	12000

The impacts of the present policy values on selected development indicators are shown in Figure 5.2.

## 5.4 Sensitivity to Exogenous Factors

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In addition to policy experiments, additional experiments can be performed with NRDM-2 to try to ascertain the potential effects of factors such as fuel costs and world economic development that are beyond Lebanon's control.

National Cost of Fuel, NCF. This variable in NRDM-2 is defined in Eqs. 285 and 285.1. Translating the equations from mathematics to English: the present cost of fuel in Lebanon is taken as 750 LL per TOE (Ton-Oil--Equivalents) and that it increases steadily to 2500 LL/TOE in the year 2030. How good is this assumption? How critical is it?

# MODIFIED RECONSTRUCTION PLAN SCENARIO BASED ON ZONING POLICY

FIG. 5.2



NRDM-2 (CASE 40)

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Fortunately it is not the task of this research or any research to forecast the values of its exogenous variables, but only to understand the effects of varying forecasts on important national development indicators. The effects of a steady state value in 50 years for the exogenous variable NCF that is twice that assumed originally in NRDM-2 is shown in Figure 5.9 for selected development indicators.

<u>World Per Capita Income, WPCI</u>. As in the case of NCF, above, WPCI is treated as a time-dependent exogenous variable. It is defined in Eq. 221. The significance of WPCI in the model is that it is a principal determinant of the Emigration Rate, ER (Eq. 235). The higher world per capita income with respect to the national per capita income in Lebanon, the greater the number of Lebanese that will leave each year, according to the assumptions in the model.

If we accept a recent report, "Global 2000", our projection for WPCI is NRDM-2 is too low. An experiment was designed based on almost doubling WPCI so that it reached 2300 LL/yr. in 50 years. A comparison of the outputs based on the two alternative forecasts for WPCI is summarized in Figure 5.11.

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# EFFECT ON LEISANON OF NCF-NATIONAL COST OF FUEL







NRDM-2 (CASE 48)

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# NRDM-2 (CASE 4C)

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FIG.5.11

#### THE SKEPTICS

Things being thus ordered, he would defer the execution of his designs no longer, being spurred on the more vehemently by the want which he esteemed his delays wrought in the world, according to the wrongs that he resolved to right, the harms he meant to redress, the excesses he would amend, the abuses that he would better, and the debts he would satisfy. And therefore, without acquainting any living creature with his intentions, he, unseen of any, upon a certain morning, somewhat before the day, armed himself cap-a-pie, mounted on Rozisante, laced on his ill-contrieved helmet, embraced his target, took his lance, and by a postern door of his base-court issued out to the field, marvellous jocund and content to see with what facility he had commenced his good desires.

#### DON QUIXOTE

## 6.1 Introduction

We are at the dawn of a new era--an information systems age that will change forever the way the world works, plays, travels, and even thinks. Just as the industrial revolution dramatically expanded the strength of man's muscles and the reach of his hand, so the computer revolution will magnify the power of his brain. But unlike the industrial revolution, which depends on finite material and energy resources, the new information systems age will be fired by a limitless resource--knowledge.

The driving force behind the revolution lies in fundamental developments in computer technology--ranging from silicon chips eched with powerful circuitry on the hardware side to interactive problem-oriented languages on the software side. The result is a problem-solving aid of enormous potential. Because of these developments, systems analyst have begun to approach the public decision makers with computer models to permit him to understand the future implications of present decisions and policies. It would appear logical that any such tool which could add rigor and scope to analysis and understanding would be wholeheartedly embraced. The question is: Why is the systems approach in general and computer models in particular not so avidly espoused? The answers range from skepticism that such grand endeavors are quixotic to deeply seated psychological and intellectual prejudices.

## 6.2 Enemies of the Systems Approach

In order to understand why the world's leaders have not more rapidly responded to computer modeling as tools for development planning, we must first appreciate the fact that they're not "in" the systems approach but rather live and decide "outside" it. Churchman has gone so far as to coin the idea of the "enemies" on the systems approach--approaches to human life that are not comprehensive, holistic, or rational. His sword falls on the humanities as he singles out politics, morality, and aesthetics as entities that have in common a tendency of rejecting the reality of the whole system in lieu of single-minded; short-sighted, piecemeal approaches.

Far more formidable than the humanities as foes of the system approach and their offspring, large-scale interdisciplinary computer models, are the management and academic establishments. While politics, morality and aesthetics are merely implausible enemies, modern management and education are implacable adversaries.

One of the paradoxes of the "traditional approach" to problem solving is that in spite of the rapid pace of technological change and growth in fundamental knowledge, solving contemporary problems using the traditional approach has not become easier. The reason is overspecialization--the tendency for professionals to narrow their focus and for scientists to compartmentalize their knowledge. The results were inevitable: (1) within disciplines, there is needless replication of research and duplication of effort; (2) between disciplines, we find authors tending to differentiate

their findings with contrived superficiality rather than contributing to the unity of science; and (3) throughout the professions and the scientific disciplines, there is a lack of social concern simply because the social need rarely expresses itself in a form to which the specialists' knowledge is simply and directly applicable.

The traditional approach to problem solving is inadequate because it is based on a philosophy that is knowledge-oriented, rather than problem-oriented. Problems are framed intellectually as philosophical questions and pragmatically as merely technological deficiencies. As to the latter, the myth of the technological fix was exposed during and the energy crisis of 1974 when it dawned on humanity that the world and its resources were finite. As to the former, the scientific philosophy underlying the traditional approach aimed only at understanding the world, not improving it. While proclaining itself as the science of the general, its essence as thus conceived was analysis, not synthesis. The approach was the division of traditional problems into a number of separate and less baffling questions. The maxim of success was: "Divide and conquer". The ultimate end was the conceptualization of the world as a whole and the unity of science. But one does not accomplish either through reconstruction of the pieces into which they have been disassembled.

The traditional approach to problem solving is wrong because it assumes that the structure of the environment and of society are isomorphic with the structure of physical science and social science, respectively. Traditionally, in order to understand what appeared to him to be diverse aspects of reality, man has developed different scientific disciplines: engineering, medicine, law, management, physics, chemistry, biology, mathematics, philosophy, sociology, geography, history, economics, etc. And

in solving different problems man has relied on experience and expertise in relevant disciplines. But our academic disciplines have proven to be more convenient ways of organizing our knowledge than applying it because the environment and society and the problems and the phenomena they present are

#### transdisciplinary.

#### en Azolea, do lotre de places Apolosia.

Development is more than a physical or economic concept. It is both un archeol e c'ardenza pene aces The country the receiver a set and a republy a desired state of a system and the process by which that state is achieved. "属新教师的复数形式"。"我们,你们们将要去帮助了你的财富是的是,还是一个人们定意。" 医马克勒普氏管门 安良 古门之意 National development is a measure of a country's vulnerability to Republic angeword and and an end 这时的智慧就能。这些最优的确实气。 externalities and of the extent that it is in control of its own destiny. It and en alter and decade frequencies in the Department of the weight an Act and the second can be furthered by a set of possible change; technological (projects), 化合成物 化连续中心 连续的复数形式 化乙酸乙酸医乙酸乙酸乙酸 4.994 《《法法》之后,《法法》《法法法法法》 14. socio-economic (policies and programs) and cultural (education). Lastly, STREET, ADA THE CONSTRANTS 意思 医结核性的 法自己法庭 计路上 医白癜 development is a complex multigoaled metaproblem--one that entails variables 计工具工程学 化试验剂 化过程控制化的过去式和过去分词 法法 网络加拿大学家的 from many academic disciplines, involves the necessity to impose some sort of 化氨酸 化合物 化氯化 经收益年龄 网络无法根据 A. C. State balance between several apparently competitive ends, and requires ethical Ash and the interpretation. Metaproblems, in general, and the development metaproblem,

in particular, rarely receive rational scientific attention because they remain outside any traditional problem solving discipline and are seldom shared with the new systems scientists, for reasons succinctly articulated by Sutherland. First of all, administrators tend to limit the use of their

interpretation of systems analysis to the tactical sub-problems framed to match disciplinary expertise while tackling the critical strategic functions, that should have included the definition and partitioning of the problem as well as the synthesis of solutions, with casual deduction and raw speculation. The partners in crimes of omission and commission are the traditional physical and social scientists who restrict their inputs in the traditional problem solving process to their well-tended little plots of specialized knowledge of the environment and of society, respectively. A

metaproblem, itself, never receives their attention because of the inadequacy of their techniques and the irrelevancy of their philosophy. Neither the traditional approaches in the soft sciences nor the hard sciences suffice for solving metaproblems--the former are verbal, qualitative and do not permit manipulation; the latter are wrapped obscurely in the mathematics of calculus and are only useful for simpler sub-problems. Then there is the disclaimer that value-ridden issues are not the proper province of science anyway--a self-serving excuse for avoiding complicated, intractable problems so as to concentrate on simpler questions that guarantee quick completion experiences.

Finally, society absolves the most critical issue affecting it--the development metaproblem--from true systems analysis because of bureaucratic arrogance and technocratic apprehension. A bureaucracy is a government characterized by specialization of functions with strict adherence to a rigid formal routine. A technocracy is government by technical experts. In the former the development metaproblem and its issues, such as energy and the environment, rural and urban, economic growth and social justice, guns and butter, inflation and unemployment, are framed as examples of irresolvable differences to be accommodated in accordance with the relative weights of the various constituencies; in the latter, as alternatives to be analyzed through the performance of quasi-optimal trade-offs. For the bureaucrat, there are no social problems--only political pressures.

#### 6.3. The Promise of the Systems Approach

We have come to the conclusion that society is a system which is being dragged down by its own inefficiency. The system operates through a set of institutions which worked well enough in a more leisurely age. But now its relaxation times no longer match the rate of perturbations and our

systems at all levels of government are actually designed to have wastable outputs. A systems approach to the future is needed.

When development--the control of our density--is considered in systems terms, some of the bewildering complexity of our world and its cities

and its regions disappears. The broad, subjective goals of development seem to find meaning in the concept of entropy. While development in this context is maximization of negentropy, this is not an application of a law of physics, but merely a method of reasoning that helps to show us what must be done. We must redesign our institutions because requisite variety for running the world, a nations, or even a great city does not exist in any man's head, whether he is a premier, president, party secretary, governor, mayor, congressman, economist, engineer, or clergyman.

While it is possible for experts to understand portions of development systems fairly well, but to put together more than a few of these relationships in an internally consistent manner without a formal technique is impossible. Development systems are composed of many feedback loops with delays, nonlinearities, and noise in the information channels and their behavior cannot be anticipated by studying isolated portions sequentially. The difficulty multiplies when considerations of policy formation and their impacts are needed. It is well within the state-of-the-art for us to improve our mental models for policy analysis and planning through the development and use of computer simulation models such as NRDM-2.

Simulation of a socio-economic system like a region involves building and operating a model designed to represent those features of the system which are deemed to be significant in view of the objectives behind the simulation. Some of the more obvious benefits of simulation include: (1) forecasting of macro behavior; (2) predicting consequences of government actions and refusal to act; (3) conducting sensitivity analysis to establish research and data gathering priorities; and (4) providing aids to communication among specialists and in the achievement of understanding.

It is known that the construction of computer simulation models help free development planners from a mechanistic, deterministic view of a region, and provide them with a more dynamic and comprehensive tool for influencing change. Specific potential uses of URDM-2 include: (1) providing a means for implementing a systems capability, (2) monitoring progress during policy implementation, (3) comparing strategic alternatives, and (4) as a pedagogical tool aiding in the training of a cadre of development planners.

### 6.4. Summary and Conclusions

During the last two decades, Lebanon has witnessed rather sudden prosperity which not even the Civil War could suppress. It has also engaged in a rat-race for procuring the largest share of the bonanza with the least expenditure of effort in the shortest time possible--illegitimately if necessary. The intensity for the need for success has resulted in the bending of the interpretation of such words as professionalism, scholarship, honor, and equity. Illegitimate means, before the war, gradually became justifiable, and justifiable means, during the worst period of the war in 1975-76, have become laudable by many--described as "guile" and even "genius" as long as it succeeds.

Post-war Lebanon is like post-war U.S.A. in many respects, where ills are attributed to changes beyond control and variously to lack of will, moral decay, selfishness, and the scattering of community responsibility. While these are factors, the key is that these nations want everything without considering--what in systems terms is called--the trade-offs. You can't stress freedom as well as order, individual liberty as well as equality,

security as well as profits from risks taken, and material wealth along with spiritual worth. These are conflicting values. Lastly, you can't have anything without taxation and conscription.

Most people do not worry about the Lebanese people because of their resourcefulness and propensity to move to countries where there are opportunities when the times are right: they worry about Lebanon. The experiment with alternate forecasts of world per capita income in Section 5 as an exogenous input to NRDM-2 dramatizes the necessity of taking a world view in approaching the problems of Lebanon's reconstruction and development.

Therefore, the purpose of this section is twofold: (1) to incorporate a world view into this research and (2) to try to diffuse anxieties regarding the study's approach ("systems") and its instrument ("NRDM-2"). In responding to this purpose we have ranged far and wide because we believe that the old fashioned problem-solving remedies that nations have used no longer suffice. There is a world wide malaise, a sense of diminished vision in facing development problems. Unlike previous times of difficulty in which good and evil could be sharply perceived, today there is a feeling that the real problems of nations are so complex that the traditional way to running things is inadequate.

One real danger is that the world will sit back and hope for leadership in the belief that great issues summon great men. And when the man in the street thinks of this type of leadership, he generally means "charisma." The question is whether the world really needs more of the charismatic, individualistic leaders that have dominated our century. Henry Kissinger is reported to have ventured the opinion that "A society that must produce a great man in each generation to maintain its domestic or international position will doom itself." A second danger is that those skeptical of the systems approach will--with no scientific basis for their reticence, with only a gut feeling for the realities of the policy area, and because of some deep psychological repulsion--merely condemn endeavors such as this study. No engineered system--Polaris, Apollo, Columbia--costing billions and affecting millions would be designed without making a model. Yet, national development systems are continually planned, designed and operated based on policies that have never been tested as to possible consequences. Institutions for evaluating experimental "software" such as policies must be established, just as we have laboratories for testing hardware.

Humanity is now approaching the transition from world wide growth to equilibrium. It has already started in most of the countries of the world including Lebanon. We can show it through computer printouts of model variables. We can show it mathematically using steady state analysis. What we can not do is chart the course of our human voyage through this transition. However, we suggest that the systems approach will provide the ship and computer modeling will serve as the instrument of navigation. 1.

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# APPENDIX A

NRDH-2 (CASE 1) MANDEACTURING SECTOR STOLEN CONTRACTOR STOLEN NOTE MC.K=MC.J+(OT)(MCI.JK-MCD.JK) (1) V. 10 = 4C V (1:1) NC-MANUFACTUR ING CAPITAE (BIL LL) NOTE C ML 1=8.079 (1.2) MON-MANJFACTURING CAPITAL INITIAL (SIL LL) NUTE MCF.K=MC.K/MC (2) · A · NUTE MCR-MANUFACTURING CAPITAL FATIO(DIMENSIDNLESS) A MEDER K = MCP . K/FUCP . K (3)MEUCR-MANUF ELECT UTIL CAPITAL RATIC (DIMENSIONLESS) NUTE MEDSM. K=TABLE (MEDSMT, MEUCR.K, 0, 3, 1) (4). 420S4T=0/1/3/6 T (+.L) NOTENDE MEDSM-MANUFFELECT DEMAND SUPPLY MULTIPLIER (DIMELISIONLESS) (د) , (5) FACE. K=FADEN# MEDSM.K NOTE FADE-FRACT MANUE DUTPUT TO ELECT (DIMENSIONLESS) (5.1) FMUEN=.(-3-C NOTE FADEN-FRACT MANUF CUTPUT IC FEECT 10714L (DIMENSI) (LESS) Δ MWUCK .K = MCR .K / WULR .K (U) NOTE MWOCR-MANUE WATER UTIL CAPITAL RATIO (DIMENSIONLESS) MWDS4.K=TABLE (MWDSMT. MWULR.K.O.3.1) (7)Α. The second (7.1) MWDSMT=0/1/3/6 MWDSM-MANUF WATER DEMAND SUPPLY MULTIPLIER (DIMENSIONLESS) NUTE FMOW.K=FMJAN\*NWDSM.K Δ. (3)FMOW-FRACT MANUE OUTPUT TO WATER (DIMENSIONLESS) NOTE C FMC // V= .01 (3.1) NOTE FMOWN-FRACT MANUE OUTPUT TO WATER NURMAL (DIMENSIONLESS) AMARINTCCR.K=MCR.K/TCCP.K ( ) ) MTEUR-MANUE TELE-COM CAPITAL RATIO (DIMENSIONLESS) NOTE AMARCA MODSH, KETABLE (MODSMT, MTCCK, K.C. 3.1) (1つ) MCD.S.4T=0/1/3/6 (10.1) T MODSH-MANUF COMMUN DEMAND SUPPLY MULTIPLIER (DIMENSIONLESS) NORES FMOC.K=FMOCN=MCDSM.K (11)-FMDCHFR&CT-A4RUF-DUTPUT TU-COMAUNTGATIONSC(UTAFNSIDNLESS) NOTE -FM36N=.02 (11.1)NOTE COMPANE FRACT MANUF OUTPUT TO COMMUN NORMAL (DIMENSIONLESS) MIFCR.K=MCR.K/TFCR.K (12)NUTE MIFER-MANJE TRANS FACIL CAPITAL RATID (DIMENSIONLESS) MTDSM.K=TABLE(MTDSMT, MTFCR.K, 0, 3, 1) (13) Å. T MT:0S 4T=0/1/3/6 (13.1)MTD SH-MANUF TRANS DEMAND SUPPLY MULTIPLIER (DIMENSIONLESS) JOTE. AT 1.14 FMOT.K=F40TH#ATDSM.K (14) EMOT-FRACT MANUE JUTPUT TO TRANSPORTATION (DIMENSIONLESS) NOTE FMOIN=.04 C (14.1)NOTE FMOTN-FRACT MANUE DUTPUT TO TRANS NORMAL (DIMENSIONLESS) ⊂≎**≙**ړ -FMOIF.K=FMOE:K+FMOW:K+FMOC.K+FMOT.K (15)FADIF-FRACT MANUE GUTPUT TO INFRASTRUCTURE (DIMENSIONLESS) NUTE 34 FMOI.K=FMOIF.K+FMOM+FMUG.K (10)NUTE FMOI-FRACT MANUE JUTPUT TO INPUTS (DIMENSIONLESS) <sup>3\*</sup>(16.1) C FMDM=.35 NOTE EMOM-ERACT MANUE UUTPUT TO MATERIALS (DIMENSIONLESS) POLR.K=MAX(LOGN(MCR.K\*VPWF\*MV.K/1VN),1) (17)VPWF=2 C PULK-PUELUTION RATIO (UIMENSIDALESS) NUTE PCMM.K=TABLF(PCMMT.POLR.K.U.10.2) (10)۵. PC-HMT=.8/1.2/2/3.6/0.3/13 (10.1) T PC AM-POLLUTION CONTROL MANUE MULT (DIMENSIONLESS) NOTE

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Δ T	ТРИМ.К=ТАЗЦЕ(ТРИМТ.ИСР.К.С.20.2) ТРММТ=1.05/.90/.66/.73/.71/.65/.60/.56/.53/.51/.5	(19) (19.1)
AUTE	TPAN-TECHNOLOGICAL PROGRESS MANUF MULT (DIMENSIONLESS)	
Δ	MCOR.K=4CORN#PONM.K#TPMM.K#T/BLE(4LAMT.4LFD.K.J.1.2)	(25)
C	MCCRN=1.0	(20.1)
т	MLA4F=1/1/1.)3/1.1/1.25/1.5	(20.2)
NUTE	MCDE-MANUE CAPITAL DUTPUT FATIO (YEARS)	
NULE	MCORN-MANUE CAPITAL OUTPUT RATIO NORMAL (YEARS)	
NOTE	ALAM-MANJE LAND AVAILABILITY MILT (DIM)	
A.	MJ.K=MC.K/ACE < .K	(21)
-101 ±	MJ-MANUE JUTPUT (BIL LL PER YR)	
4		(22)
NUTE	MP+MANUE PRODUCT LEIL LE PER YRJ	
HOLE	MEDINE FOLINE CONTRACTOR STRONG CONTRACTOR VOL	1231
_ 901 ±. 	MUDHMANUF CAPITAL DEPETUIATION (BIL LL PER TR)	1 11 1 1 1 1
	-LAU-24 	(23.1)
	LACTETETIME MANOR CAPITAL (TEARS)	1241
MUTE	MOTEMANHE CONTRACTORING LATE FOR DEVICE	1241
A NUT C	EMDI KACIID (EMDIY, EMDIY, TIME, K.RECOTRI)	1251
r r	FMPISKHCLIF(FMFIX)FMFII)FFIMESKSKUCFLK/	
c c		(25 2)
C	RECDERED	(25.3)
	EMPT-ERACT MAN IE PRODUCT INVESTED (DIME ISTONEESS)	(23:3)
NOTE	RECPERER FOUNS TRUCTION PERIOD (YEARS)	
8	RIMAKI=CITP(0.RIMC.TIMF.K.5)	(20)
C	RIMC=0	(26.1)
NOTE	RIM-RECURSTRUCTION INVESTMENT IN MANUE (BIL LE PER YR)	
L	$M.K=NM.J+(\partial T)(MA.JK)$	(27)
. N	NM= N 4N	(27.1)
NÚTE	NM-NOR MAL MANUFAUTURING (ESTABLISHMENTS)	
С	NMN=5000	(27.2)
NOTE	NMN-NORMAL MANUFACTURING INITIALLY (ESTABLISHMENTS)	1999 - S. 1999 -
L	$DM \cdot K = DM \cdot J - (DT)(ME \cdot JK)$	(23)
N.	D M=D MN	(23.1)
INGT E	OM-DAMAGED MANUFACTURING (ESTABLISHMENTS)	
C	D-HIN-EO	(23.2)
NCTE.	OMN-DAMAGED MANUFACTURING INITIALLY (ESTABLISHMENTS)	
L	$F_{M} \cdot K = RM \cdot J + (DT) (MR \cdot JK)$	(29)
N	RM=RMN	(291)
NUTE	RM-RESTURED MANUE (ESTABLISHMENTS)	
E NUT T		129.21
NUTE	RMN-RESTURED MANUE INITIALLY (CSTABLISHMENTS)	1
A	$ME \bullet K = NM \bullet K + UM \bullet K + M \bullet K$ $ME \bullet K = MAK + M \bullet K + M \bullet K$	(30)
NUTE	MITHANUTAUTUR (NG ISTADE ISTMENTS) MITHANUTAUTUR (NG ISTADE ISTMENTS)	1211
NOTE	MEFUSIKERSENTETREZEZM Mefusikasheri kan esant untrudted (dtmedistane ski	
nurc r	IDMS= 15	(21.1)
C .	1/M=4500	(31.2)
NOTE	IPASHIAND PER MENUE ESTABLISHMENT (HECT PER ESTABL	
NÜTE	EZM-LAND ZINED FOR MANUE (HEETARES)	
A	MEC4.K=TABLE(MECMT.4LE0.K.0.12)	(32)
T	MECMT=.2/.5/1.0/2.0/4.0/10.0	(32.1)
NUTE	450M-MANJE ESTABLISHMENT COST AULT (DIMENSIONLESS)	
Δ	LPME.K=UPME 1+ 4EUM.K	(53)
NŬT E	CPME-COST PER MANUE ESTABLISHMENT (MIL LL PER ESTAB)	
C	CPME 1=1.30E0	(13.1)

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APPENDIN A

	NUTE	CP4EN-COST PER MANUE ESTABLISHAENT ADRAAL (AIL LE PER E	STAS)
	R	MAAKLE MULAJKEMULAJKEMAAJKEVAEJZUPALAK	(34)
	L.		(3++1)
		MATTANDE AUDITIONS (ESTAD FER YK)	
	Kasa je V	MAAKE-ULIPU JOHRPOTIMEAKOKEUPEKI Maa-a o	
	<b>L</b>		(35)
	NUIE	MR-MANUERASTUKANIUNS (ESTAB PERITA)	
	NUTE	MRP-MENDE RESTURATIONS PROGRAMMED (ESTAB PER YR)	
	A.	FAUG.K=CLIP(FAUGU)>.1At.K.5)	(301
	C	"E M0605,205"	(30.1)
	NOTE	FAUG-FRACT MANUE DUTPUT TO GAVE (DIMENSIONLESS)	
	NCTE	BUST VESS. SECTOR TO A MARKAGE AND A MARKAGE A	
	L	BC.K=BC.J+(DT)(BCI.JK-BCD.JK)	(37)
	N	BC=BCN Astronomy of states and the second states of the	(37.1)
	NOTE	BC-BUSINESS CAPITAL	· · · ·
	<b>C</b> (11) (1	BCN=24E9 CONTRACTOR DEPENDENT OF A D	(37.2)
·	N DT E	BCN+BUSINESS CAPITAL INITIAL (BIL LL)	
	A	BCR'.K#BC.K/BCN in a set program de l'Assertion de la set annual de la set annual de la set annual de la set a	1 30 J
	NUTE	BCR-BUSINESS CAPITAL RATIO(DIMENSIONLESS)	
	<b>A</b> . 1	BEUCR.K=BCR.K/FUCP.K	(37)
	NUTE	BEUCRHOUSIN ELECT UTIL, CAPITAL RATIO (DIMENSIONLESS)	
e A	Δ.	BEDSM.K=TABLE(BEDSMT.BEUCR.K.).3.1)	<b>(+</b> 0)
	<b>T</b>	BEDSAT=0/1/3/owned provide the second s	(+0.1)
	NOTE	BEDSM-BUSIN ELECT DEMAND SUPPLY MULT (DIMENSIONLESS)	
	A	Falle.K≠F80EN#3FDSM.K.	(+1)
	NOTE	A FBUETFRACT BUSIN DUTPUT TO ELECT (DIMENSIONLESS)	
	Carden	FBUENE.025 with such as the second device of the second second second second second second second second second	(+1.1)
	NOTE	FROEN-FRACE BUSIN DUTPUT TO ELECT NORMAL (DIMENSIONLESS	€ jagen a
	<b>A</b> .	BWUCR.K=BCR.K/WUCR.K	(+2)
	NOTE	BAUCR-BUSIN WATER UTIL CAPITAL RATIO (DIMENSIONLESS)	
	Ä	BWDSM.K=TABLE (DWDSMT. BWUCR.K.0.3.1)	(43)
• .	<b>T</b> . 1977	BWDSMT=0/1/3/6 mineral for the second states and the second states and the second states and the second states and the second states are second states and the second states are second states a	(43.1)
	NUTE	- BWOSM-BUSIN WATER DEMAND SUPPLY RATIO (DIMENSIONLESS)	
	Δ.	FBOW.K=FBOWN*BwDSM.K	144)
	NOTE	EBOW-FRACT BUSIN OUTPUT TO WATER (DIMENSIONLESS)	
	C.	FBOWN=.Clear the second state of the second st	(44.1)
	NOTE	FBOWN-FRACT BUSIN OUTPUT TO WATER (DIMENSIONLESS)	
	Δ .	BTCCR.K=BCR.K/TCCR.K	(45)
	NOTE	BICCR-BUSIN TELE-COM CAPITAL RATIO (DIMENSIONLESS)	
	A	BCDSM.K=TABLE(BCDSMT.BTCCR.K.0.3.1)	(+0)
	T	BCDSMT=0/1/3/0	(40.1)
	NOT 5	BCDSM-BUSIN COMMUN DEMAND SUPPLY MULT (DIMENSIONLESS)	
·	Δ	FBOC.K=FBOCN#BCDSM.K	(47)
	NOTE	FBUC-FRACT BUSIN OUTPUT TU COMMUNICATIONS (DIMENSIONLES)	51
	C .	Fouch=.025	(47.1)
	NOTE	FBQCN-FRACT BUSIN OUTPUT TO COMMUNINGRMAL (DIMENSIONLES)	Ś)
	A	BTFGR.K=BCR.K/TECR.K	(48)
	NOTE	BIFCR-BUSIN TRANS FACIL CAPITAL RATID (DIMENSIONLESS)	• •
	<b>A</b> .	BTDS4.K=TABLE(BTDSNT,BTFCR.K,0,3,1)	(49)
	Т	BTDS 4T=0/1/3/5	(49.1)
	NOTE	BTDSM-BUSIN TPANS DEMAND SUPPLY MULT (DIMENSIONLESS)	1. A.
	Δ	FBOT.K=FBOTN×BTDSM.K	(50)
	NOTE	- FBUT-FRACT BUSIN OUTPUT TO TRANSPORTATION (DIMENSIONLESS	51
	С	FBOIN=.04	150.11
	NOTE	FOOTN-FRACT, BUSIN OUTPUT TU TRANS NORMAL (DIMENSIONLESS)	)
	۵	FBDIF.K=F3JE.K+FBDW.K+FBDC.K+FBDT.K	(51)
	NOTE	FBOIF-FRACT BUSIN OUTPUT TO INFRASTRUCTURE (DIMENSIONLES	\$5)

# MOLTLINAME = NEDRE - 1 (CASE 1)

4	FBOI.K=FBOIF.K+FBOM+FBOG.K	(52)
NOTE	- FBOIHFRACT BUSIN CUTPUT TO INPUTS (DIMENSIONLESS)	
C	F304=.13	(つ之・三) -
A	BCOR.K=TABLE(BLAMT.BLFO.K.).12)*503RN	(53)
r	BLAMI =1.5/1/1.2/1.5/1.9/2.5	(23.1)
С .	BCORV=2.0	(53.21
NOT-	BC DR-BUSTNESS CAPITAL HUTPUT RATIO (YEARS)	
Δ	30.K=56.K/3603.K	1.541
NOT 2	ATHRICTMERS (HTPHT (ATH IN DED VD)	
	DD 20014100 201401 4012 22 444 444	1461
acte:	$\begin{array}{c} \mathbf{D} \mathbf{\Gamma} \bullet \mathbf{N} = \mathbf{D} \cup \bullet \mathbf{N} \bullet 1 1 = \mathbf{T} \cup 1 \bullet \mathbf{N} \bullet \mathbf{I} \\ \mathbf{D} \mathbf{D} = \mathbf{D} \cup \mathbf{C} \bullet \mathbf{N} \bullet 1 1 = \mathbf{T} \cup \mathbf{C} \bullet 1 1 = \mathbf{C} \bullet 1 1 = \mathbf{C} \bullet \mathbf{N} \bullet \mathbf{N} \\ \mathbf{D} = \mathbf{D} \cup \mathbf{C} \bullet 1 1 = \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} 1  \mathbf{C} \bullet 1 = \mathbf{D} = \mathbf{C} \bullet \mathbf{N} \bullet \mathbf{N} \\ \mathbf{D} = \mathbf{D} \cup \mathbf{C} \bullet 1 1 = \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C}  \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C}  \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \\ \mathbf{D} = \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C}  \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C}  \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C}  \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \bullet \mathbf{C} \\ \mathbf{C} \bullet \mathbf{C}$	())1
NUIE	DETBUSINESS FRODULT IDIL LL PERTERT	1 m 1
K ·	BUD-KLEBU-K/LBU	( 50 )
NUTE	BUDEBUSIN CAPITAL DEPRECIATION (BIL LL PER YR)	
C	LBC=25	(50.1)
NOTE	LBC+LIFETIME BUSINESS CAPITAL (YEARS)	
R	BUI.KL=BP.K≠E3PI.K+₹I3.JK	(57)
E TUN	BCI-BUSIN CAPITAL INVESTMENT (BIL LL PER YN)	
A	FBPI.K=CLIP(FBFIX,FBPIY,TIME.K,RECPER)	(50)
C	F3PIK=.35	(58.1)
С	FBP I Y= . 35	(53.2)
NOTE	FUEL-FRACT BUSIN PRODUCT INVESTED (OT 4ENSIONLESS)	
2	RTB.KI=CITP(0.8180.TIME.K.5)	(59)
c	STREACTION TO CONTRACTOR	156.11
NOTE	DIDLOCCOULTDUCTION INVESTMENT IN DICTION	(2201)
NU F Z -	KID-RECUBINOUTLUA INVESTMENT IN COSTAESS	1
L	$\mathbf{WB} \bullet \mathbf{K} = \mathbf{WB} \bullet \mathbf{J} + \mathbf{WJ} \bullet \mathbf{J} \bullet \mathbf{J} \mathbf{K} \mathbf{J}$	1501
N	N 3 = N 3N	(60.1)
NUTE	NB-NORMAL BUSINESS (ESTABLISH 4ENTS)	
С	14 BN=30000	(60.2)
NOTE	NBA-NORMAL BUSINESS INITIALLY (ESTABLISHMENTS)	· · · · ·
L	DH.K=DH.J-(DT)(BR.JK)	(01)
N	DB=DBN	(61.1)
NOTE	DS-DAMAGED BUSINESS (ESTABLISHMENTS)	
C	() () () () () () () () () () () () () (	(a1.2)
	DRU-DAMAGED BUSINESS INITIALLY (ESTABLISHMENTS)	
1	RR.N=RN_1+()T)(RR_1K)	1.521
		15(1)
NETT	SELECTIONS AND	
NUTE	RETRESTORED DUSTRESS (CSTADLISHMINTS)	1
ц. Мил. — т.		102.21
NUIE	KRN-KESTIKED BUSINESS LESTADLISHMENTST	
A ·	38. K=N5. K+38. K+83. K	(63)
NOTE	BE-BUSINESS ESTABLISHMENTS	
Δ :	BLFO.K=EE.K#LPDE/LZO	(3+)
NOTE	BLFD-BUSINESS LAND FRACTION UCCJPIED (DIMENSIONLESS)	
NOTE	LPBE-LAND PER BUSINESS ESTABLISHMENT (HECT PER ESTAB)	
C	LP3E=.05	(04.1)
ũ	LZB=3000	(04.2)
NOTE	LZB-LAND ZONED PER BUSINESS (HECTARES)	· · ·
Δ	HECM. K=TABL = ( 3=CMT.BL E) .K. (). 12)	(05)
T	B = C AT = -2/-5/1/2/4/1	(65.1)
NATE	HECH-BUSTN ESTABLOUST WHET (OTHENSTONEESS)	
A .	CORE KECONTANAAFUM K	Lant
NOTE	PDIDENTOLOUDENT ATTAL ANTALASE MITHUS OF CTABLE	(00)
NOTE:	TO DE DE LE	1 - 4 - 3 3
L MOTE	しかりに利用することで、 (1997) (19977) (1997) (19977) (1997) (1997) (1997) (1997) (1997)	100 + 1 }
NULE:	UPDENTUDSE PER DUSEN ISTAB NUKTAL (MIL LL PER ESTAB)	,
K	BA•KL=(BP•K#F3F1•K+BC•K/LBC)/(PB=•K	(67)
NUTE	HA-BUSINESS ADUIDIJUNS (ESTAB PER YR)	
R	BR.KL=CLIP(U.JKP,TIME.K.KECPEK)	(00)

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C		(03.1)
	TE - ADDERIGTA VESTURATIONS DECENDATED TESTAR DEV VEL TE - ADDERIGTA VESTURATIONS DECENDATED TESTAR DEV VEL	
Δ	S FRRAKECHIP(FARGULIITUREK.5)	(14)
ĉ	$F8 \ \Im GC = .10$	(07.1)
NÜ	TE STEBOG-FRACT BUSIN DUTPUT TO GOVE (DIMENSICALESS)	
NJ	THE INFRASIRUCTURE SECTOR CONTINUES OF A DESCRIPTION OF A	
L	EUG.K=EUC.J+(DT)(EUCL.JK-EUCD.JK)	(70)
16	n in <b>EUC</b> = EUC Note of the second and the second s	(70·i)
NG	FE («EUGHELECTRIC UTILITY CAPITAL (UIL LL) -	
C C	CAREUGN=(]•2E9; 1	(10.2)
N_I	THE SUBREFLEUREN UTIL CAPITAL INTITAL (SIL LL)	1 7 7 1
	E EUCRENETUCENZIONELLE CADINELLE CADINELLE CADINELLE CALENCELE CALENCE	1111
	THE AL MORE THE OFFICE KATES AND	(72)
ND.	TE - ENDERIGATIO UTIL DUTPUT (BILLI) PER YP)	
A	FEUCH.K=HEG.K/TEC.K	(73)
iN()	TE FEUCH-FRACT ELECT UTIL CAPL HYDRDELECTRIC (DIMEN)	
Α.	FEUDF.K=TABLE(FEUDFT.FEUCH.K.0.15)	(74)
T	FEUJFJ=•67•4/3	(7++1)
. УÙ	FE FEUDF-FRACT ELECT UTIL OUTPUT TO FUEL (DIMEN). TO THE PROPERTY OF THE PROPE	
A	EUP.K=EUO.K*(1-FEUCF.K)	(75)
NO	TE EUP-ELECTRIC UTIL PRUDUCT (BIL LL PER YR)	1 <b></b>
- <b>R</b>	EUCD-KLEEUC-KALEUC FRANKEREUC-KALEUC-KALEUC-BERDECTATIAN (ALEUC) DER MON	(70)
	IC EUCOTOREST UTIL CAPITAL DEPRECIATION (DIL LL PER TRI I EUCHAN	174 31
	TE LEUCHNIESTLAE ELECT IN THICOPITAL (YEARS)	1 70,17
3	FUCT_Kt = FHP_K*FFUPT	(77)
NJ	FE CEUCI-ELECTOUTIL CAPITAL INVESTMENT (BIL LE PER YR)	
C	FEUPI=.4	(77.1)
NŰ	FEUPEFRACT ELECT UTIL PRODUCT INVESTED (DIMEN)	100 and
L	WUC.K=WUC.J+(DT)(WUCI.JK-WUCD.JK)	(78)
N.	the ₩UC≠WUCN, state of weather on the Alexandra and a second of the state of the second second second second se	(/0.1)
NC	FE WUCHWATER UTIL CAPITAL (BIL LL)	
C.		(78.2)
AL.	HERRYWUUNTWERER UTIL UAPTIAL INTFAL IBIL LLT Buuch Regule // Buch	170)
	NUCKEN-WUCEN/NUCH FFATER ATTAL CAPTAR SETTO (ALMENIA	(191
Δ		(สา)
NO.	FE WUG-WATER UTIL OUTPUT (BLL LL PER YR)	
۵	WUP.K=WUO.K*(1-FWUGI)	(31)
NO:	FE WUP-WATER UTIL PRODUCT (BIL LE PER YR)	
C	FAUDI=-05 Constant State	(81.1)
NO	FEFWUDI-FRACT WATER UTIL: OUTPUT®T D'INPUTS (DIMEN)	
Ą	WDSR.K=DSWC.K/DSWS.K	(32)
NO.	FE WOSR-WATER DEMAND SUPPLY RATION(DIMEN) For the second second	
A T	- ごみし1M。Kキ1の3にこ(もWU1M1。WU2N。K。()。4)。4) このしたいていてキュント / D/ フトノーロト コノーコノーロドノーロンノーロン	(85) (85)
1. Kiči		(0).1]
୍ କୁ	WHED_KE=WHE_K/I WHE	(84)
ND	FE WUCD-WATER UTIL CAPITAL DEPRECIATION (BILLLEPER YR)	<b>1 ₩ 7 4</b> 4 4 5
C		(34.1)
NŨ	TE LWUCHLIFETIME WATER UTIL CAPITAL (YEARS)	· · · · · · · · · · · · · · · · · · ·
R	WUCI.KL=WUP.K*FWUPI*EWUIM.K	(85)
NG	TEWUCI-WATERSOUTIL_CAPITALSINVESTMENTS(BILLLLPERSYR)	a g
С	FWUPI =.4 - Contraction of the second s	(35.1)
NO	TE FWUPI-FRACT WATER UTIL PRODUCT INVESTED/(DIMEN)	

£1

- E	$TCC_{A}K = TCC_{A}I + (0)T(TCCL_{A}IK + TCC)I_{A}IK)$	1 301
N		(86.1)
. 45. Nis≤177 ⊑.	TOUT FOR A STANDARD AT THE FORTAGE AND TAKE AND A	
	TOUT DE TURNER I DAS CAPITAL (DIL LU)	1.5 1 15
C	1.0.N=1.559	130.21
10 TE	TCCN-TELE-COMMUN CAPITAL INITIAL (BIL LL)	*
4	TODR.K=TCC.K/TCCU	(37)
NOTE	TREP-TELS-CONNUM CAPITAL RATIO (OINFR)	
A		1331
i de La companya		1007
	ICT-LEFFCOWWOW COLLOL (BIFFEF NEW AND	
Δ	TCP•K=TCO•K*(1-FTCGI)	(39)
NUTE	TCP-TELE-COMMUN PRODUCT (BIL LE PER YR)	1. A.
î.	FT(.)!=.3	(89.1)
Jor 2	ETCULERACT TELE-COMMUNE FUTPUT TO INPUTS (DIMENT)	
NOT L	TECHTERACE TELEFORMON COTFOL SO INFOTS (DIMEN)	1.501
¥		( <del>4</del> 1 1
40T₩	TCCD-TELE-COMMON CAPITAL DEPRECIATION (BIL LL PER YR)	
С	L TCC = 30	(40.1)
NÜTE	LTCCHLIFETIMS TELEHOOMMUN CAPIFAL (YEARS)	
D	$TCC I = XI = TCP = K \neq FTCP I + FTC = JK$	(91)
N. 17 2	TO TAKE OF BOOM AND CARTER THAN FOR THE TAKE OF A THAT THE DEEL VEN	
INE'I C	FOULTLE DUBTION CAPITAL INVESTMENT ABLE LE FOR THE	101 33
<b>i</b> .	F1CP1=•4	(91+1)
NUTE	ETCPI-FRACT TELECOMMUN PRODUCT INVESTED (DIMEN)	
3	FITC.KL=CLIP(0,FITCC.TIME.K,5)	(92)
C	KITCC=0	(92.1)
SIÓ T F	PITC-RECINSTRUCTION INVESTMENT IN THE ECOMMON (ATL 1) PER	YEI
1	The watter $A_{L}$ of $A_{L}$ is a finite field of $A_{L}$ is a field of $A_{L}$ in $A_{L}$	1.721
L.		1931
		193.11
NUTE	ITF-INTERNATIONAL TRANSPUR) FACILITIES (BIL LL)	
C	ITFN=1.5E9	(93.2)
NOTE	ITEN-INTE TRANSPORT FACIL INITIAL (BIL LI)	
۸.	T = K = (KO - K + EAOT - K + EAO - K + EAOT - K + AETT - C - C - C - C - C - C - C - C - C -	1041
		(24)
NUTE	TIJ-INIL TRANSPORT OUTPUT IBIE EET	
C	FIT=•5	(94.1)
NOTE	FIT-FRACT IN INTE TRANSPORT (DIMEN)	
Δ	ITP.K=ITO.(*(1-FITCI)	(95)
MOTE	ITP-INTE TRANSPORT PRODUCT (BILL IS PER YR)	
- 10 F C		105 1)
		(92.11
401.7	FILUT-FRACE INTE TRANSPORT DUPOT TO INPUTS	
S. ₽	ITHO.KL=ITH.K/LITH	(96)
NUTE	ITED-INFL TRANSPORT FACIL DEPRECIATION (BILLL PER YK)	
C.	1 TTF=25	(95.1)
	ITELLIFETTAE LATI TRANSPART EVEN (VEAPS)	
	EITETLIFETTIC INTEL TRANSFORT FAGIE (TEARS)	1
ĸ	1  F1.KU=1+F.K.#F1;F1+V1+V.JK	1971
NCTE	ITFI-INTERNATIONAL TRANS FACIL INVESTMENT (BIL LL PER YR	
С.	FITPI=.4	(97.1)
NOTE	FITPI-FRACT INTL TRANSPORT PRODUCT INVESTED	
0	$P_{1}$ $T_{1}$ $F_{1}$ $= C_{1}$ $P_{1}$ $(2, P_{1})$ $T_{1}$ $(2, P_{1})$ $T_{2}$ $(2, P_{1})$	LURY SI
		(39.1)
<u>ر</u>	RIIIC=0	170.1/
NUTE	KILL-RECONSTRUCTION INVESTMENT IN INTE TRANSPORT (BIL LL	PER YRI
L	LTF.K=LTF.J+()T)(LTF1.JK+LTFD.JK)	(99)
N	LTF=LTFN	( 99.1)
NOTE	LTE-LAND TRANSPORT FACILITIES (BIL 11)	
r	I TENEA, SEO	(44 )
<b>ب</b> ا الم	し 11 パイ オキリア フー・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	177061
NUIT	LIFNFLANJ IKANSPUKI FACIL INIIIAL (BIL LL)	4 ) y- 1
A	LIU.K=(MC.K*FADT.K+BD.K*FBDT.K)*FLT	ULCard
BION	LTJ-LAND TRANSPORT GUTPUT (BIL LL PER YR)	. · · · ·
C	FLT=.5	(10).1)
NULE	FLT-FRACT IN LAND TRANSPORT (DIMEN)	
	a mana a sanangka ang ang kanangka panangkan kanang Kanang Pang Pang Pang	

MUDEL NAME = NRDM - 1 (CASE 1)

	Д	LTP.K=LTU.K≠(1-FLTUI)	(101) 8
	NOTE	LTP-LAND TRANSPORT PRODUCT (BIL LL PER YR)	1301 11
		FLEGT-FRACTELAND, TRANSPORT BHTPHT THAT PLATE (DYMEN)	1491+11
	2	LTED.KL=LTF.K/LLTF	(1.72)
	STE	LTFD-LAND TRANSPORT FACIL DEPRESIATION (BIL LL PER YR)	
	L. And	LLTF = 75	(102.1)
	TON	LLIFFLIFETIME LAND TRANSPORT FACIL (YEARS)	
	- Ka Hotel	LINISKLELPSKARDENARDENT FORMULTARNT ARTHUR DER VEN	(103).>
	jingat ⊞ ⊒C	THERE AND TRANSPORT FOR INVESTMENT ADIL LUPER ANT FETTELA CONTRANSPORT	(113-1)
	NOTE	FLIFI-FRACT LAND TRANSPORT FACIL INVESTED (DIMEN)	
	<b>X</b>	PILT-KL=CLIP()-KILTC.TIME.K.5)	(1)+)
	C 🔬	RILTC=0. The share of the second states of the seco	(1)4.1)
	NOTE	RILT-RECONSTRUCTION INVESTMENT IN LAND TRANSPORT (BIL LI	PER YRI
	A	NTERRETIEREN (11) FERHER (11)	(195)
	NOTE	MANDINER SECTOR	n an Arren (* 1997) Friday
	1	JPMCU_K=TABLE(JPMCUT.MCR.K.C.20.2)	(15a)
	T	JPMCUT=.28/.22/.17/.13/.10/.03/.07/.065/.062/.06/.06	(136.1)
	NOTE	JPMCU-JOBS PER MANUE. CAPITAL UNIT (PERSONS/LL E4)	
	$\mathbf{A}_{\mathcal{L}_{i}}$	JIM.K=JPMCJ.K*MC.K/10000	(197)
• •.	NUTE	JIM-JOBS IN MANUFACTURING (PERSONS)	
	А. С	FMP.01P.K=ULIP(FMPGX+FMPGY+11ME+K+KECPEK)	(108)
	C C	FMPGY=.05	(105.2)
	NUTE	FMPGTP-FRACT. MANUE. PRODUCT GOVT. TRANSFER PAYMENT (DIV	1.)
	A	GOPPWM.K=MP.K # (1- FMPI.K-F4PGTP.K)/JI4.K	(109)
	NGTE	GDPPWM-G.J.P. BER WURKER IN MANUF (LL/YR-PERSON)	
	A J	IPBCU.K=TABLE(JPBCUT,BCR.K.U.20,2)	(110)
	NUTE	JP5001=+222/+175/+135/+105/+085/++75/+37/+07/+07/+07/+07/+07/+07/+07/+07/+07/+0	(110-1)
	-NU1∈ Δ	JIBLK=JPBC/LKK#RCLK/10000	(111)
	NUTE	JIB-JOBS IN BUSINESS (PERSONS)	
	4	FBPGTP.K=CLIP(FBPGX,FBPGY,TIME.K,RECPEK)	(112)
	C.,	FBPGX=.1	(112.1)
	C.,	FBRGY=.1	(112.2)
	NO IT.	- FREGIEFERALIS BUSINS PROLUCI GIVIS IRANSFER FAIMENT UDIN Conduma Fead Feitherdt Ferdt Ferdeto Vilita F	1.1.21
•	NOTE	GOPPWB-G.D.P. PER WORKER IN BUSIN. (II/YR-PERSON)	(115)
	A	JPEUCU.K=TABLE(JEUCUT,EUCR.K.0.2).4)	(11+)
	<b>T</b> 25 1	JEUCUT= .75/ .55/ .45/ .4/ .37/ .35	(114.1)
	NUTE	JPEUCH-JOBS PER ELECT UTIL CAPITAL UNIT (PERSONS/LL E5)	
	A	JIEU.K=JPEUCU.K*EUC.K/100000	(115)
	-NU1 E	SILEU-JUBS INFELEDIKIC UTILITIES (PERSONS) CODMENS VEEND VETTEERININ (TETTER V	(11)
	A MATE	GOPWEU-RECUPERANDERKER IN FRENTEITIE (11/VR-DERSOUL)	(110)
	NCTE	FEUPI-FRACT ELECT. UTIL, PROD. I.WESTED (DIM)	
	A	JPAUCU.K=TABLE(JWUCUT,WUCR.K.J.2),4)	(117)
	T	JAUCUT= . 40/ .38/ .32/ .28/ .20/ .25	(117.1)
	NOTE	JPWUCU-JJBS PER WATER UTIL CAPITAL UNIT (PERSUNS/LL ES)	
	∆j NOT⊂	JINU.KHJPWUCU.KYWUC.K/100000	(118)
	NU]E A	CDDPMH1 K==10.K*(1-EMH0.1)/11-M1.K 91M0-9902-10/WATEK 011CT1122 (NEK29421	(116)
	NOTE	GUP WULE -D. P. PER WURKER IN WATER UTIL (LL/YK-PERSUN)	τι <b>Δ</b> ι <b>Δ</b> ι, <b>Ζ'</b> Ζ
	۵	JPICCU.K=TA3LE(JTCCUT.TCCR.K.).2).4)	(120)
	T	JTCCUT=1.05/.d5/.7/.o/.55/.5	(123.1)

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NUTE	JPTCCU-JOBS PER TELE-COM CAPIFAL UNIT (PERSINS/LL 25)	
Δ	JITC.K=JPTCCU.K*TCU.K/100000	(121)
NOTE	JITC-JEBS IN TELE-COMMUNICATIONS (PERSONS)	
A	GDPWTC.K=TCP.K*(1-FTCPI)/JITC.K	(122)
N. T =	GDP NTC- G.D.P. PER KORNER IN TELE-COM(LL/YR-PERSON)	
Δ	IPPTCH.K=TAH FLITTCHT.ITE.K/ITEN.J.20.4)	(12i)
- T		1125.11
NOTE	DITCH-LING PER INTE TRANS CAPITAL HULT (PERSONS/L: ES)	
A	TTE READING RETTER /100000	(126)
 	TTELIUS IN THTE TOANG EANTHTEG IDERCHUCH	(124)
NUIE	JILTTUUS ITINEL ENANS FAULLIES ("EKSUNSF. Coolit veito veitettuivite k	(124)
4	BUTWING NETHER AND DEPONDENT TO AND ALLAND DEPOND	(12)1
NUSE	GUPWIN-G.J.P. PER WUPKER IN INCLERANS (LL/YR-PERSUN)	
4	JPLIJU-K=IABLE(JLICUI+LIF+K/LIEN+3+2J+4)	(120)
T	JLTCUT=•21/•17/•14/•12/•11/•1	(126.1)
NOTE	JPLTCU-JOBS PER LAND TRANSPORT CAPITAL UNIT (PERSONS/LL	E5)
Д	JLTF.K=JPLTGU.K*LTF.K/100000	(127)
NUTE	JLTF-JEBS IN LANG TRANS FACILITIES (PERSONS)	the second
Δ	GDPALT.K=LTP.K*(1-FLTPI)/JLTF.K	(128)
NOTE	GOPWLT-G.D.P. PER WORKER IN LAND TRANS (LL/YR-PERSON)	
À	UCGDP.K=FUP.K+WUP.K	(129)
NOTE	UCGDP-UTILITIES CONTRIBUTION TO G.D.P. (BIL LL PER YR)	
Δ	IFCGDP.K=TCP.K+ITP.K+LTP.K	(130)
NOLE	LECOUP-IVERASTRUCTURE CONTSTR TH G.D.P. (BILLIE PER YR)	
Λ.	I SGDP K = MP K + JP K + UCGDP K + TECGDP K + GSCGDP K	(131)
JOLE	CODD-CONSTRUCTION SERVING C.D.D. (BIG 1) PER VEL	11517
A	COUP =	11221
С	AEDT - A	1122 11
		112011
C .		(152+2)
-		1 2 2 2 2 4 2
6 		(132.3)
NOTE	CP-CENSTRUCTION PRODUCT (BIL LL PER)	(132.3)
NOTE	CDI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM)	(132.3)
NOTENOTENOTE	CDIE.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM)	(132.3)
NOTE NOTE NOTE NOTE	CUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION OUTPUT TO INPUTS (DIM)	(132.3)
	CDIE.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCDI-FFACT CONSTRUCTION OUTPUT TO INPUTS (DIM) CD.K=CP.K/(1-FCCI)	(132.3)
	CUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCDI-FFACT CONSTRUCTION OUTPUT TO INPUTS (DIM) CD.K=CP.K/(1+FCCI) CD-CONSTRUCTION OUTPUT (BIL LL PER YF)	(132.3)
NOTE NOTE NOTE NOTE A NOTE	CUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION DUTPUT TO INPUTS (DIM) CD.K=CP.K/(I+FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR	(132.3) (133) (134)
NOTE NOTE NOTE NOTE A NOTE A C	CUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION DUTPUT TO INPUTS (DIM) CD.K=CP.K/(I+FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCOR CCOR=1.0	(132.3) (133) (134) (134.1)
NOTE NOTE NOTE NOTE A NOTE A C NOTE	CUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION DUTPUT TO INPUTS (DIM) CD.K=CP.K/(I-FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL)	(132.3) (133) (134) (134.1)
NOTE NOTE NOTE NOTE A NOTE A C NOTE NOTE	CUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION DUTPUT TO INPUTS (DIM) CD.K=CP.K/(I-FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCOK-CONSTRUCTION CAPITAL (BIL LL)	(132.3) (133) (134) (134.1)
NOTE NOTE NOTE NOTE A OTE A C NOTE NOTE	CUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION DUTPUT TO INPUTS (DIM) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCDK-CONSTRUCTION CAPITAL (BIL LL) CCDK-CONSTRUCTION CAPITAL OUTPUT RATID (YEARS) JIC.K=CC.K*JPCCU	(132.5) (133) (134) (134.1) (135)
NOTE NOTE NOTE NOTE A OTE NOTE NOTE NOTE NOTE	CUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION OUTPUT TO INPUTS (DIM) CD-CONSTRUCTION OUTPUT (BIL LL PER YF) CC-K=CO-K*CCOR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCOK-CONSTRUCTION CAPITAL (BIL LL) CCOK-CONSTRUCTION CAPITAL GUTPUT RATID (YEARS) JIC.K=CC-K*JPCCU JPCCU=.3E+5	(132.5) (133) (134) (134.1) (135) (135.1)
NOTE NOTE NOTE NOTE A OTE NOTE NOTE NOTE NOTE NOTE	<pre>FCUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION OUTPUT TO INPUTS (DIM) CD.K=CP.K/(I-FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCOK-CUNSTRUCTION CAPITAL (BIL LL) CCOK-CUNSTRUCTION CAPITAL (BIL LL) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JGBS IN CONSTRUCTION (PERSONS)</pre>	(132.5) (133) (134) (134.1) (135) (135.1)
NOTE NOTE NOTE NOTE A NOTE A C NOTE NOTE A C NOTE NOTE	<pre>FCUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION OUTPUT TO INPUTS (DIM) CD.K=CP.K/(I-FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCOR-CUNSTRUCTION CAPITAL (BIL LL) CCOR-CUNSTRUCTION CAPITAL (BIL LL) JIC-CONSTRUCTION CAPITAL OUTPUT RATID (YEARS) JIC-JGBS IN CONSTRUCTION (PERSONS) JPCCU=JOBS PER CONSTRUCTION (PERSONS)</pre>	(132.5) (133) (134) (134.1) (135) (135.1)
NOTE NOTE NOTE NOTE A NOTE NOTE NOTE NOTE NOTE NOTE	CUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION OUTPUT TO INPUTS (DIM) CD.K=CP.K/(I-FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CO.K*CCOR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCOR-CONSTRUCTION CAPITAL (BIL LL) CCOR-CONSTRUCTION CAPITAL (BIL LL) CCOR-CONSTRUCTION CAPITAL OUTPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JGBS IN CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5)	(132.3) (133) (134) (134.1) (135) (135.1)
NOTE NOTE NOTE NOTE A NOTE NOTE NOTE A C NOTE NOTE A C NOTE NOTE	<pre>FCUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION JUTPUT TO INPUTS (DIM) CD-K=CP.K/(I+FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YP) CC.K=CU.K*CCOR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCOK-CUNSTRUCTION CAPITAL (BIL LL) CCOK-CUNSTRUCTION CAPITAL OUTPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JCBS IN CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) GDPPNC.K=CP.K*(I-FCPI)/JIC.K</pre>	(132.3) (133) (134) (134.1) (135) (135.1) (136) (136.1)
NOTE NOTE NOTE NOTE A NOTE NOTE NOTE A C NOTE NOTE NOTE A C NOTE NOTE A C	<pre>FCUI=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION JUTPUT TO INPUTS (DIM) CJ-K=CP-K/(I-FCCI) CO-CONSTRUCTION DUTPUT (BIL LL PER YF) CC-K=CU-K*CCUR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCOK-CUNSTRUCTION CAPITAL (BIL LL) CCOK-CUNSTRUCTION CAPITAL (BIL LL) CCOK-CUNSTRUCTION CAPITAL OUTPUT RATID (YEARS) JIC-K=CC-K*JPCCU JPCCJ=.3E+5 JIC-JGBS IN CONSTRUCTION (PERSONS) JPCCU-JGBS IN CONSTRUCTION (PERSONS) JPCCU-JGBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) GDPPNC-K=CP-K*(I-FCPI)/JIC-K FCPI=.4 CODDICC CODDIC CODE (DECODE DECODE)</pre>	(132.3) (133) (134) (134.1) (135.1) (136) (136.1)
NOTE NOTE NOTE NOTE A NOTE NOTE A C NOTE NOTE A C NOTE NOTE NUTE A C NUTE	<pre>FCUI=.5 GP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION DUTPUT TO INPUTS (DIM) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CO.K*CCOR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCDK-CONSTRUCTION CAPITAL (BIL LL) CCDK-CONSTRUCTION CAPITAL GUTPUT KATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JGBS IN CONSTRUCTION (PERSINS) JPCCU-JOBS PER CONSTRUCTION (PERSINS) JPCCU-JOBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) GDPPAC.K=CP.K*(1-FCPI)/JIC.K FCPI=.4 GDPPAC-G.D.P. PER WORKER IN CDASTR (LL/YR-PERSON) FCOI-FORT CONSTRUCTION DOTO INFERTO (DIA)</pre>	(132.5) (133) (134) (134.1) (135) (135.1) (136) (135.1)
NOTE NOTE NOTE NOTE A NOTE NOTE A C NOTE NOTE NUTE A C NUTE NUTE	<pre>FCU1=.5 CP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIA) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION OUTPUT TO INPUTS (DIM) CD-CONSTRUCTION DUTPUT (BIL LL PER YE) CC.K=CO.K*CCOR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCOK-CONSTRUCTION CAPITAL (BIL LL) CCOK-CONSTRUCTION CAPITAL GUTPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JGBS IN CONSTRUCTION (PERSONS) JPCCU-JDBS PER CONSTRUCTION (PERSONS) JPCCU-JDBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) GDPPAC.K=CP.K*(1-FCPI)/JIC.K FCPI=.4 GDPPAC-G.0.P. PER WORKER IN CDASTR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIA) NEW FORMATION FROM FROM FROM FROM FROM FROM FROM FROM</pre>	(132.5) (133) (134) (134.1) (135.1) (136.1) (135.1)
NOTE NOTE NOTE NOTE A NOTE NOTE A C NOTE NOTE A C NUTE A C NUTE A C NUTE A C	<pre>FCU1=.5 CP-CCNSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION DUTPUT TO INPUTS (DIM) CD-K=CP.K/(I-FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCOR CCDR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCDK-CUNSTRUCTION CAPITAL (BIL LL) CCDK-CUNSTRUCTION CAPITAL GUTPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JGBS IN CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) GDPPAC.K=CP.K*(I-FCPI)/JIC.K FCPI=.4 GDPPAC-G.D.P. PER WORKER IN CDASTR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIM) NAJ.K=JIM.K+JIB.K+JIEU.K+JIWU.K+JITC.K+JITF.K+JLTF.K+JIC</pre>	(132.5) (133) (134) (134) (135) (135.1) (136) (135.1) (136) (135.1)
NOTE NOTE NOTE NOTE A OTE NOTE A C NOTE NOTE A C NUTE A C NUTE A C NUTE A C NUTE NOTE	<pre>FCUI=.5 GP-CCNSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION DUTPUT TO INPUTS (DIM) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCJK-CUNSTRUCTION CAPITAL (DITPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JOBS IN CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) GDPPMC-K=CP.K*(1-FCPI)/JIC.K FCPI=.4 GDPPMC-G.D.P. PER WORKER IN CD4STR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIM) NAJ.K=JIM.K+JIB.K+JIEU.K+JIWU.K+JITC.K+JITF.K+JLTF.K+JIC NAJ-NON-AGE COULTUFAL JOBS (PERSONS)</pre>	(132.5) (133) (134) (134.) (135.1) (135.1) (136.1) (136.1) (136.1)
NOTE NOTE NOTE NOTE A C NOTE NOTE A C NOTE NOTE A C NOTE NOTE NOTE NOTE NOTE NOTE NOTE	FCUI=.5 GP-CONSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION JUTPUT TO INPUTS (DIM) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCOR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCOK-CUNSTRUCTION CAPITAL (BIL LL) CCOK-CUNSTRUCTION CAPITAL OUTPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCU=.3E+5 JIC-JOBS IN CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) GDPPMC.K=CP.K*(1-FCPI)/JIC.K FCPI=.4 GDPPMC-G.0.P. PER WORKER IN CDAS FR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIM) NAJ.K=JIM.K+JIB.K+JIEU.K+JIWU.K+JITC.K+JITF.K+JLTF.K+JIC NAJ-NON-AGEICULTURAL JOBS (PERSONS) GUVERNMENT SERVICES SECTOR	(132.5) (133) (134) (134.1) (135.1) (135.1) (136) (136.1) GS.K+JIC.K
L NOTE NOTE NOTE NOTE A C NOTE NOTE A C NOTE NOTE A C NOTE NOTE NOTE L	<pre>FCUI=.5 CP-CCNSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION DUTPUT TO INPUTS (DIM) CD.K=CP.K/(I-FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CO.K*CCOR CCDR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCDK-CONSTRUCTION CAPITAL GUTPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JOBS IN CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) GDPPMC.K=CP.K*(I-FCPI)/JIC.K FCPI=.4 GDPPMC-G.D.P. PER WORKER IN CDMSTR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIM) NAJ.K=JIM.K+JIB.K+JIEU.K+JIWU.K+JITC.K+JITF.K+JLTF.K+JI( NAJ-NON-AGE ICULTURAL JOBS (PERSONS) GUVERNMENT SERVICES SECTOR UPEF.K=UPEF.J+(DT)(UPEFI.JK-UPEFD.JK)</pre>	(132.5) (133) (134) (134.1) (135) (135.1) (136) (136.1) GS.K+JIC.K (136)
L NOTE NOTE NOTE NOTE A C NOTE NOTE A C NOTE NOTE A C NOTE NOTE NOTE L N	<pre>FCUI=.5 CP-CCNSTRUCTION PRODUCT (bil LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION JUTPUT TO INPUTS (DIM) CJ.K=CP.K/(I-FCCI) CD-CONSTRUCTION OUTPUT (BIL LL PER YF) CC.K=CO.K*CCUR CCDR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCDK-CUNSTRUCTION CAPITAL (DITPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JOBS IN CONSTRUCTION (PERSINS) JPCCU-JOBS PER CONSTRUCTION (PERSINS) JPCCU-JOBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) GDPPMC.K=CP.K*(I-FCPI)/JIC.K FCPI=.4 GDPPMC-G.D.P. PER WORKER IN CDASTR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIM) NAJ.K=JIM.K+JIS.K+JIEU.K+JIWU.K+JITC.K+JITF.K+JLTF.K+JI( NAJ-NON-AGR ICULTURAL JOBS (PERSINS) GUVERNMENT SERVICES SECTOR UPEF.K=UPEF.J+(DT)(JPEFI.JK-UPEFD.JK) UPEF=UPEFN</pre>	(132.5) (133) (134) (134.1) (135.1) (135.1) (136.1) (136.1) (136.1)
L NOTE NOTE NOTE NOTE A C NOTE NOTE A C NOTE NOTE A C NOTE NOTE NOTE L NOTE L N C	<pre>FCUIE.5 GP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION JUTPUT TO INPUTS (DIM) CJ.K=CP.K/(1-FCCI) CO-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCDR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCCK=CUNSTRUCTION CAPITAL (BIL LL) CCCK=CUNSTRUCTION CAPITAL OUTPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=:3E+5 JIC-JCBS IN CONSTRUCTION (PERSINS) JPCCU-JUBS PER CONSTRUCTION (PERSINS) JPCCU-JUBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL ES) GDPPAC.K=CP.K*(1-FCPI)/JIC.K FCPI=:4 GDPPAC-G.D.P. PER WORKER IN CDASTR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIA) NAJ.K=JIM.K+JIB.K+JIEU.K+JIWU.K+JITC.K+JITF.K+JIC NAJ-NON-AGEICULTURAL JUBS (PERSINS) GUVERNMENT SERVICES SECTOR UPEF.K=UPEF.J+(DT)(UPEFI.JK-UPEFD.JK) UPEFN=:8E9</pre>	(132.5) (133) (134) (134) (135) (135.1) (136) (136.1) (136.1) (136.1) (136.2)
L NOTE NOTE NOTE NOTE A C NOTE NOTE A C NOTE NOTE A C NOTE NOTE L NOTE NOTE L NOTE	<pre>FCUIE.5 GP-CENSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIM) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION JUTPUT TO INPUTS (DIM) CJ.K=CP.K/(1-FCCI) CO-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCDR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCJK-CUNSTRUCTION CAPITAL (BIL LL) CCJK-CUNSTRUCTION CAPITAL (BIL LL) CCJK-CUNSTRUCTION CAPITAL (BIL LL) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JCBS IN CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION (PERSONS) JPCCU-JOBS PER CONSTRUCTION (APITAL UNIT (PERSONS/LL E5) GDPPAC.K=CP.K*(1-FCPI)/JIC.K FCPI=.4 GDPPAC-G.D.P. PER WORKER IN CJASTR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIM) NAJ.K=JIM.K+JIS.K+JIEU.K+JIMU.K+JITC.K+JITF.K+JITF.K+JI( NAJ-NON-AGRICULTURAL JOBS (PERSONS) GUVERNMENT SERVICES SECTOR UPEF.K=UPEF.J+(DT)(UPEFI.JK-UPEFD.JK) UPEFN=.8E9 UPEF-URBAN PUBLIC FDUC FACIL (LL)</pre>	(132.5) (133) (134) (134) (135) (135.1) (136) (136.1) (136.1) (136.1) (136.2)
L NOTE NOTE NOTE NOTE A C NOTE NOTE A C NOTE A C NOTE NOTE L NOTE L	<pre>FCUI=.5 GP-CCNSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIA) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FFACT CONSTRUCTION JUTPUT TO INPUTS (DIM) CD-KECP.K/(1-FCCI) CD-CONSTRUCTION DUTPUT (BIL LL PER YF.) CC.KECU.K*CCUR CCDR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCDK-CUNSTRUCTION CAPITAL UNIT (PERSONS/LL ED) JCCJ=.3E+5 JIC-JGBS IN CONSTRUCTION (PERSONS) JPCCU-JDBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL ED) GDPPAC.K=CP.K*(1-FCPI)/JIC-K FCPI=.4 GDPPAC-G.D.P. PER WORKER IN CDASTR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIM) NAJ-K=JIM.K+JIB-K+JIEU.K+JIWU.K+JITC-K+JITF-K+JLTF-K+JIC NAJ-NON-AGRICULTURAL JOBS (PERSONS) GUVEPNMENT SERVICES SECTOR UPEF-WPEFN UPEF-UPEF.J+(DT)(UPEFI.JK-UPEFD.JK) UPEF-UPEFN UPEF-UPEF.J+(DT)(RPEFI.JK-RPEFD.JK)</pre>	(132.5) (133) (134) (134) (135) (135.1) (136) (136.1) (136.1) (136.1) (136.2) (137)
L NOTE NOTE NOTE NOTE A C NOTE NOTE A C NOTE NOTE A C NOTE NOTE L N C NOTE L N	<pre>FCUI=.5 CP-CCNSTRUCTION PRODUCT (BIL LL PER) AFPI-AVER FRACT PRODUCT INVESTED (DIA) AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) FCOI-FPACT CONSTRUCTION JUTPUT TC INPUTS (DIM) CJ.K=CP.K/(1-FCCI) CO-CONSTRUCTION DUTPUT (BIL LL PER YF) CC.K=CU.K*CCUR CCDR=1.0 CC-CONSTRUCTION CAPITAL (BIL LL) CCGR-CUNSTRUCTION CAPITAL GUTPUT RATID (YEARS) JIC.K=CC.K*JPCCU JPCCJ=.3E+5 JIC-JGBS IN CONSTRUCTION (PERSONS) JPCCU-JGBS IN CONSTRUCTION (PERSONS) JPCCU-JGBS PER CONSTRUCTION (PERSONS) JPCCU-JGBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL ES) GDPPAC.K=CP.K*(1-FCPI)/JIC.K FCPI=.4 GDPPAC-G.D.P. PER WORKER IN CJASTR (LL/YR-PERSON) FCPI-FRACT CONSTRUCTION PROD INVESTED (DIA) NAJ-K=JIM.K+JIB.K+JIEU.K+JIMU.K+JITC.K+JITF.K+JITF.K+JIC NAJ-NON-AGEICULTURAL JGBS (PERSONS) GUVERNMENT SERVICES SECTOR UPEF.K=UPEF.J+(DT)(UPEFI.JK-UPEFD.JK) UPEF-UBBAN PUGLIC FDUC FACIL (LL) RPEF.K=RPEF.J+(DT)(RPEFI.JK-RPEFD.JK) RPEFERPEFN</pre>	(132.5) (133) (134) (134) (135) (135.1) (135.1) (136.1) (136.1) (136.1) (136.2) (137) (139.1)

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		TRESPONDENT CONCEACTIONS	
	NU12.	NERTHORAL PUBLIC ENVICEMENT (LL)	
	<b>д</b> 199	PEUSK=PEFSK/'ABLE(PEUGKI,PEFSK/PEFN.0,20,2)	(140)
	T	PECJRT=3.5/4.5/4.6/5/5.2/5.5/0/7/d.5/1)/12	(1+3-1)
	C	PEFN=1.6E9 March 1997 And 199	(143-2)
	NOTE	PECOR-PUBLIC FOUC CAPITAL CUTPUT RATIO (YEARS)	1. N. A.
	NOTE-	PERÁPUBLIC EDUCATION FACIL INITIAL (BIL EL)	
	S	FPES.R=PEP.K/PEO.K	(141)
	NOTE	FPES-FRACT PUBLIC EDUC SUBSIDIZED	
	NUTE	PED-PUBLIC EDUC OUTPUT (BILLE PES YK)	
	2	GP.K=MO.K*EMOG.K+BC.K*EBOG.K	(142)
	NOTE	CD4CAVEPIMENT PRODUCT LATE IL PAL VRI	
	Λ	DED.R-CD KAECDDE	11
	C I		1723 11
	NUTE	FUFFE-12	(14291)
	NUTE	PEP-PUBLIC EDUCATION PRODUCT (BIL EL PER YR)	in an Rainneach Saite anns an Saite
	NUTE	FUPPEFERALI GUVI PRUJUCA IL PUBLIC EDULATION (DIMI)	• • • •
	*	UPEFJ.KL=UPEF.K/LPEF	(144)
	C	LPEF=25	(144.4.1)
	NUTE	UPEFD-URBAN PUBLIC EDUC FACIL DEPRECIATION (LL/YR)	
	NOTE	LPEF-LIFETIME PUBLIC EDUC FACIL (YR)	and the second
	R	RPEFD.KL=RPEF.K/LPFF	(145)
	NOTE	LPEF-LIFETIME PUBLIC EDUC FACIL (YEARS) - CARACTER - CA	
	Δ .	JPPECU: K=TABLE( JPECUT, PEF.K/PEFN, 0, 20,4)	(146)
	Т	JPECUT=1.02/.94/.08/.84/.82/.8	(1+0.1)
	NUTE	JPPECU-JGBS PER PUBLIC EDUC CAPITAL UNIT (PERSONS/11 #5)	
	Δ	JTPF-K=JPPECU-K*PEF-K/100000	(1 + 1)
	NOTE	ITPE-JOBS IN PUBLIC EDUCATION (PERSONS)	
	A	CODUDIL K =0 TO K #11 - EDEDIL/ HDS K	(144)
	C .	EDEDTA A	12707
	L NITE	$\begin{array}{c} \mathbf{F} = \mathbf{F} = \mathbf{F} \\ \mathbf{O} = \mathbf{D} = \mathbf{D} \\ \mathbf{O} = \mathbf{D} \\ \mathbf{O} = \mathbf{D} \\ \mathbf{D} = \mathbf{D} \\ $	(1+3+1)
	NUTE	GUPWPUTG.U.P. PEN WUKNEK PUDLIG SDUG (LLTTKFPENSUN)	
	NULE	PEPI-FRACI PUBLIC EUUC PRODUCT INVESTED (DIM)	· · · · · · · ·
	R.	UPERI.KL=PEP.K*EPEPI*FIUPE	(14)
	C	FIUPE=.8" and the first of the second s	(149.1)
÷.,+	NOTE	UPEFI-URBAN PUBLIC EDUC FACIL INVESTMENT (LL/YF)	
	NOTE	FIUPE-FRACT INVESTMENT URBAN PUBLIC EDUC (UIM)	
	R	RPEFI.KL=PEP.K*FPEPI*(1-FIUPE)	(156) 🔅
i s i	NUTE	"RPEFI-RURAL PUBLIC EDUC FACIL INVESTMENT (LL/YR)	
	A	PEF.K=UPEF.K+RPEF.K	(151)
	NOTE	PEF-PUBLIC EDUCATION FACILITIES (BIL LL)	
	A	PHO.K=PHF.K/TABLE(PHCORT.PHF.K/PHFN.0.20.2)	(152)
	T	PHC08T=2.5/3.5/4.1/4.5/4.9/5.5/6/7/8.5/10/12	(152.1)
	Ċ	PHFN=1,0F9	(15/.2)
	NITE	PHORE-PHOLECONFALTHOCAPITAL OUTPUT RATIO (YEARS)	122667
	NOTE	DHEN-DIBLIC HEALTH FACTL INITIAL (BILLE)	
		COUC M-DUD M/DUC M MOLE INITIAL TOLE ELY	(152)
	NOTE	ГГИЗ•К-ГИГ•ИЛ ГИС•К БЛИС-БОХСТ ЭНД ТС ИБЛІТИ С ЮСТАТІСА	(122)
	NUTE	FRASTERACI FUDLIC DEALTH SUDSIDIZED	
	NUTE	PHOPPOBLIC HEALTH OUTPON THE LL PER TAIN	
	Alter in		(12+)
	C	FGPPH=•2	(154.1)
	NUTE	PHP-PUBLIC HEALTH PRODUCT (BIL LL PER YR)	$\mathcal{L}_{\mathcal{A}} = \{ \mathbf{a}_{i}, \dots, \mathbf{a}_{i} \}$
	NOTE	FGPPH-FRACT GOVT PRODUCT TO PUBLIC HEALTH (DIM)	ta a katal
	L	UPHF *K=UPHF • J+ (DT) (UPHF1• JK+UPHF)• JK)	(155)
	N	UPHF=UPHFN	(155.1)
	C	UPHF-1=88日9	(155.2)
	NUTE	UPHE-URBAN PUBLIC HEALTH FACIL (LL)	
	L -	RPHF.K=RPHF.J+(DT)(RPHFI.JK-RPHFD.JK)	(150)
	N	RPHF=RPHFN	(150.1)
	C	RPHFN=.259	(156.2)

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NOTE	RPHF-RURAL PUBLIC HEALTH FAULE (LL)	
Α –	JPPHCU.K=TABLE(JPHCUT.PHF.N/PHF.N.J.2).+)	(157)
Τ -	JPHCJT=1.02/.74/.88/.34/.82/.8	(157.1)
NOTE	JPPHEU-JOBS PER PHALTE HEALTH CAPITAL HEALT (PERSON/11)	=5)
	ITPH.K=JPPHCULK*PHF.K/1())(0)	(153)
พื่อชุด	IT DH- LOAS IN PHRITC HEATTH (DERSING)	(1)01
	- 31-94-0005 14 (ODE10 HAACHI (FERSDAD)	(15.0)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		11077
С. 	- FF FF 1年 4	1123011
NOTE	GUPWENTS.J.F. PER WORNER IN PUBLIC HEALIN (LL/INTPERSU	
NUTE	FPHPI-FRAUE POBLIC HEALTH PRODUCT INVESTED (DIN)	(1.0)
4		11001
1015	PHE-PUBLIC HEALTH FACIL (LL)	
	JPHFI.KL=PHP.K*FPHPI*FIUPH	(161)
С	FIUPH=.8	(161.1)
NOTE	UPHFI-URBAN PUBLIC HEALTH FACIL INVESTMENT (LL/YR)	
NOTE	FIUPH.FRACT INVESTMENT URBAN PUBLIC	
<b>R</b>	RPHFI.KL=PHP.K*FPHPI*(1-FIUPH)	(102)
NOTE	RPHFI-RURAL PUBLIC HEALTH FACIL INVESTED (LL/YP)	
R	UPHED.KL=UPHE.K/LPHE	(163)
C	LPHF=15	(163.1)
SIGN	UPHED-URBAN PUBLIC HEALTH FACIL DEPRECIATION	
NATE	EPHE-LIFETIME PUBLIC HEALTH FACILITIES (YE)	
2	EPHED.KI=RPHE.K/IPHE	(164)
	RPHED-RURAL PUBLIC HEALTH EACTL DEPRECIATION	
NOTE	IDHELITERTIME DIRLIC HEALTH FACTL (VEARS)	
	THO RETTO AND TO DETE DERETH TROLE TEANS	(165)
NOTE	LINGEN-LIVENTACHTEN Etualou INCAME Houston outout (etual dae val	(10)/
NULE	LING KARD KARDDI NUUJHE NUUJING UUIPUI (DIL LL PER IN)	
A .	LIHP.K=GP.K=FGPLIN+LIHU.K+(1+FR)1)	11007
C		(160.1)
С С	FGPL1H=.2	(106-2)
NUTE	LIHP-LOW INCOME HOUSING PRODUCT (BIL LE PER YR)	
NGTE	FRTI-FRACT RENT TO INPUTS	
NUTE	FUPLIH-FRACT GOVT PRUD INVESTED IN LOW INCOME HOUSING	(DIM)
2	RILIH.KL=CLIP(0,RILIHC.TIME.K,5)	(167)
C	RILIHC=0	(107.1)
NOTE	RILIH-RECONSTRUCTION INVESTMENT IN LOW INCOME HOUSING	(BIL LL PEP)
A	PAP.K=GP.K*FGPPA	(168)
C .	FGPPA=.45	(108.1)
NOTE	PAP-PUBLIC ADMINISTRATION PRODUCT (BIL LL PER YR)	
NOTE	FGPPA-FRACT GUVT PROD TO PUBLIC ADMIN (DIM)	
A	JIPA.K=GP.K*JPGPCU	(109)
ĉ	4PGPCU=1.0=-5	(169.1)
NOTE	JIPA-JOAS IN PHRITE ADMINISTRATION (PERSONS)	
NOTE	OTH CODI TH CODETO HE LITTON (LET CONO)	
A	ID COCH-INSS DER COVT PRODICAPITAL (INIT (DERSONS/11 ES)	1
	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5)	(170)
NOTE	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K	(170)
NOTE	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JOBS IN GOVT SERVICES (PERSONS)	(173)
NOTE A	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JDBS IN GOVT SERVICES (PERSONS) GSCGDP.K=PEP.K+PHP.K+LIHP.K+PAP.K	(173) (171)
NOTE A NUIE	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JOBS IN GOVT SERVICES (PERSONS) GSCGDP.K=PEP.K+PHP.K+LIHP.K+PAP.K GSCGDP-GOVT. SERVICE CUNTRIB TO G.D.P. (BIL LL PER YR)	(173) (171)
NOTE A NUTE NOTE	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JOBS IN GOVT SERVICES (PERSONS) GSCGDP.K=PEP.K+PHP.K+LIHP.K+PAP.K GSCGDP-GOVT. SERVICE CUNTRIB TO G.D.P. (BIL LL PER YR) AGRICULTURAL SECTUR	(173) (171)
NOTE A NOTE NOTE L	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JOBS IN GOVT SERVICES (PERSONS) GSCGOP.K=PEP.K+PHP.K+LIHP.K+PAP.K GSCGOP-GDVT. SERVICE CUNTRIB TO G.D.P. (BIL LL PER YR) AGRICULTURAL SECTUR IF.K=IF.J+(DT)(IFI.JK+IFD.JK)	(173) (171) (172)
NOTE A NUTE NOTE L N	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JOBS IN GOVT SERVICES (PERSONS) GSCGOP.K=PEP.K+PHP.K+LIHP.K+PAP.K GSCGOP-GOVT. SERVICE CUNTRIB TO G.D.P. (BIL LL PER YR) AGRICULTURAL SECTOR IF.K=IF.J+(DT)(IFI.JK+IFD.JK) IF=IFN	(173) (171) (172) (172,1)
NOTE A NUTE NOTE L N NUTE	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JOBS IN GOVT SERVICES (PERSONS) GSCGDP.K=PEP.K+PHP.K+LIHP.K+PAP.K GSCGDP-GOVT. SERVICE CUNTRIB TO G.D.P. (BIL LL PER YR) AGRICULTURAL SECTOR IF.K=IF.J+(DT)(IFI.JK-IFD.JK) IF=IFN IF-IRRIGATION FACILITIES (BIL LL)	(173) (171) (172) (172,1)
NOTE A NUTE L NUTE C	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS-K=JIPE-K+JIPH-K+JIPA-K JIGS-JOBS IN GOVT SERVICES (PERSONS) GSCGOP-K=PEP-K+PHP-K+LIHP-K+PAP-K GSCGOP-GOVT. SERVICE CUNTRIB TO G.D.P. (BIL LL PER YR) AGRICULTURAL SECTOR IF-K=IF.J+(DT)(IFI.JK+IFD.JK) IF=IFN IF-IRRIGATION FACILITIES (BIL LL) IFN=.7E9	(173) (171) (172) (172,1) (172,2)
NOTE NUTE NUTE NUTE C	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JOBS IN GOVT SERVICES (PERSONS) GSCGDP.K=PEP.K+PHP.K+LIHP.K+PAP.K GSCGDP-GDVT. SEKVICE CUNTRIB TO G.D.P. (BIL LL PER YR) AGRICULTURAL SECTOR IF.K=IF.J+(DT)(IFI.JK+IFD.JK) IF=IFN IF-IRRIGATION FACILITIES (BIL LL) IFN=.7E9 IFN-IRRIGATION FACILITIES INITIAL (BIL LL)	(173) (171) (172) (172.1) (172.2)
NOTE NOTE L NUTE C NUTE L	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JDBS IN GOVT SERVICES (PERSONS) GSCGDP.K=PEP.K+PHP.K+LIHP.K+PAP.K GSCGDP-GDVT. SERVICE CUNTRIB TO G.D.P. (BIL LL PER YR) AGRICULTURAL SECTUR IF.K=IF.J+(DT)(IFI.JK+IFD.JK) IF=IFN IF-IRRIGATION FACILITIES (BIL LL) IFN=.7E9 IFN-IRRIGATION FACILITIES INITIAL (BIL LL) NICL.K=NICL.J-(DT)(ILDF.JK+LCR.JK)	<pre>(173) (171) (172) (172.1) (172.2) (173)</pre>
NOTE NOTE L NUTE C NUTE L N	JPGPCU-JDBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) JIGS.K=JIPE.K+JIPH.K+JIPA.K JIGS-JDBS IN GOVT SERVICES (PERSONS) GSCGDP.K=PEP.K+PHP.K+LIHP.K+PAP.K GSCGDP-GDVT. SERVICE CUNTRIB TO G.D.P. (BIL LL PER YR) AGRICULTURAL SECTUR IF.K=IF.J+(DT)(IFI.JK-IED.JK) IF=IFN IF-IRRIGATION FACILITIES (BIL LL) IFN=.7E9 IFN-IRRIGATION FACILITIES INITIAL (BIL LL) NICL.K=NICL.J-(DT)(ILDR.JK+LCR.JK) NICL=NICLN	<pre>(173) (171) (172) (172.1) (172.2) (173) (173.1)</pre>

	C	NICLN=270000	(173.2)
	NOTE	WICLN-NON-IRRI CULTIV4TABLE LAND INTIAL (HECTARES)	· · · · · · · · · · · · · · · · · · ·
	L	TCL.K=ICL.J+(DT)(ILDR.JK)	(17+)
	N		(174.1)
	NOTE	ICL-IRRIGATED CULTIVATABLE LAND (HECTAPES)	
	1. 	TULNE FURUA Totas totas totatos o automata de enviro, tetto a la contra de la seconda de la contra de la contra de la contr	(174+2)
		ICEN-IPRIGATED CULTIVATADEC LAND INITIAL (AECTARES)	(175)
•	Ň		(175.1)
	NOTE	ULAURBAN LAND (HECTARIES)	
	С	UL 1=100C0	(172.2)
	NOTE	WE ULN-UPBAN LAND INITIAL (HECTARES)	g Kapana ang Pangalan ang Pangalan kapang
	L	$AC \cdot K = AC \cdot 3 + (DT) (LCI \cdot JK - ACD \cdot JK)$	(170)
	N	AC=ACN	(170.1)
	NOTE	AC-AGRICULTURAL CAPITAL (BIL LL)	
	C		(176.2)
	NULE	AUN-AGNIGULIURAL GAPITAL INITIAL (BIL LL)	
	A	UNILK .K=PU.K/(NIUL .K+RWIL=IUL.K)	(1/7)
		CNTER-CADITAL NUM-TRRI LANG RATIO (1) PER HECT)	
	NOTE	RWILER-CAPITAL ADDAIRE LAND RATIO (LE REA ALCOV RWILER-FLATIVE WIEGHT OF IRRE LAND (DIM)	
-	۵.	ACTLR K = AC K / (ICL K + NICL K / RWIL)	(175)
•	NUTE	ACILR-AG CAPITAL IRRI LAND RATIO (LL PER HECT)	
	۵	FVICLR.K=NICL.K/(NICLN+ICLN)	(179)
	NOTE	FNICLE-FRACT NON-IREI CULT LAND REMAINING (DIM)	
	A	CILR.K=ACILR.K+IFLN	(130)
	C	IFLN=7778	(180.1)
	NOTE	CILR-CAPITAL IRRI LAND RATIO (LL PER HECT)	
	NUTE	IFLN-IRRI FAUILITIES PER LAND INTITAL (LL PER HEUT)	(101)
	а С	CNILK • K=UNILK • KZUNILKN CNIL 24-2111	(101)
	NGTE	RENTER-RELATIVE CAPL NON-TERT LAND RATED (DIM)	(101.11)
: '	NOTE	CNIERN-CAPITAL NON-IRRI LAND RATIO INITIAL LLE PER HELT	<b>7 )</b>
	Α	RCILR.K=CILR.K/CILRN	(182)
	C	CILRN=14000	(182.1)
	NOTE	RCTLR-RELATIVE CAPITAL IRRI LAND RATIO (DIM)	
۰.	NOTE	CILRN-CAPITAL IRKI LAND RATIG INITIAL (LL PER HELT)	
	Δ	CYMNIL.K=TABLE(YMNILT.RCNILR.K.0.10.2)	(183)
	T	YMNILT=0/2/2.5/2.9/3/3	(185.1)
	NOTE	CYMNIL-CAPL YIELD MULHIPLER NON-IRRI LAND (DIM)	9
	А. Т <sup>2</sup> т	$CYMIL \bullet K= \{ABLE \{ UTMIL \} \in K \cup ILK \bullet K \bullet U \bullet IJ \bullet Z \}$	(184)
	NOTE	CIMILIAND ZIGS DIREDITER TRATEDITAND (DIM)	1104.11
	Δ	NTLY.K=NTLYN*CYMNTL_K	(185)
	C	NILYN=1.0	(185.1)
÷	NOTE	NILYN-NON IRRI LAND YIELD NORMAL (VEG EQUIV TONS/HECT-)	(R.)
	Α .	ILY.K=ILYN*CYMIL.K	(180)
	С	IL YN= 6.0	(130.1)
	NOTE	ILYN-IRRIGATED LAND YIELD NOKMAL (VEG EDJIV TONS/HECT-Y	(R)
	Α	FP.K=NILY.K*NICL.K+ILY.K*ICL.K	(187)
	NOTE	FP-FUDD PRODUCTION (THOUSAND VEG. EQUIV TONS/HELT-YF)	an an an Arrange. Na martina an Arrange
	<u>л</u> т	12000*K=1432=(120001*FN1023*K*0*1*20)	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
	∽∎ N∩ <del>T</del> ⊂	THOCHLIDDE LAND DEVELODMENT COST MULT (DIM)	(100.1)
		ILDUMTIKKI LAND DEVILMMAENT UJST MULT IDIMT ILDUMKE/TETNATUONIXIIDOMUK	11201
	r C	100 N = 77 78	(189-1)
	NETE	TILDE-IRRI LAND DEVELOPMENT COSTS (LL PER HECT)	
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NOTE	ICCN-IPRI CONSTRUCTION COSTS INITIAL (LL PER HECT)	е., С <b>ла</b> на в <b>к</b>
A	NAGUP, KEUSHUP, KEUP, K	(193)
NC4 E	NAGUPTNUM #GRICULIURE G.D.P. (BIL LL PER TR) Cost vieto viecto im Viecto inicot v	12003
a c	SCIDINE CA	(190)
NOT=	CAT-COVE REDGET TO TRATATION LATE RE DER VAL	(171.2)
NOTE	EGTPIN-ERACT GOVE THATSER PAYAENTS TO TRATINGHAL (DIA)	1
R	ILDR.KL=GBI.K/ILDU.K	(192)
NUTE	ILDR-IKRI LAND DEVELOPMENT RATE (HECT PER YR)	
А	ULR.K=TABLE(ULFT.NAGDP.K.0.150E9.15E9)	(193)
T UL	_RT=0/16000/24000/28000/30000/31000/31000/31000/31000/3100	37.31000
NOTE	ULR-URBAN LAND REQUIRED (THOUSANDS OF HECTARES)	
R	LCCR.KL=DELAY1(LCP.JK.ULDT)	(194)
R	LCF.KL=(ULR.K-UL.K)*FLPPY	(194.1)
C	FLPPY=.25	(194.2)
C	ULDT=4	(19+.3)
NOTE	LCCR-LAND LONVERSION COMPLETION RATE (HA/YR)	
NOTE	LCR-LAND CUNVEPSION RATE (HAZYR)	
NUTE	HEPPY-FRACE LAND PROGRAMED PER YEAR (17YK)	
NULE	ULDI-UPBAN LAND DEVELUPMENT (IME (YEARS)	
NOTE	LUKTLANU LUNVERSIUM KALE (HEUL PEK IR) 1. undersiden kand dense odment tile (Merden)	
	TED VI-TE V/LITE	110-1
c c	1FD+NG=1F+N/C1F	(1951)
NOTE	LICEDU TEDLIRRY EACTITIES DEPREMATING (ATT TO PER VEN	(17)01)
NOTE	ITE-ITEFTIAE TERT FACTUATIES (YEARS)	
R	IFI.KL=GBI.K	(196)
NOTE	IFI-IRRI FACILITIES INVESTMENT (BIL LI PER YR)	
A	FPC.K=FP.K/NP.K	(197)
NOTE	EPC-FOUD PER CAPITA (THOUS VEG EQUIV TONS / YR-PERSON)	
Δ .	FGTPIM.K=TABLE(FGPIMT.FPC.K/FPCN.0.4.1)	(198)
T	FGPI4T=2/1.5/1/.6/.5	(198.1)
Ċ	FPCN=.27	(198.2)
NOTE	FGTPIM-FRACT GOVE TRANSFER PAYMENTS TO IRRI MULT (DIM)	
4	AO.K=FP.K*POF	(199)
C	POF=1000	(199.1)
NOTE	AD-AGKICULTURAL OUTPUT (BIL LL PER YR)	
NUTE	PUF-PRICE UF FUUL (LL PER TUN)	1.54
Δ .	$AP \bullet K = AU \bullet K \neq (1 - FAU I)$	12001
NOTE	AQLACTICH THEAL DODNET AUTH IN DED VOA	1200.11
NOTE	EXAMPLED AND AND AND AND AND AND AND AND AND AN	
R R	$\lambda CD - KI = \Delta C - K/I \Delta C$	(201)
Ĉ	1 AC=20	(201,1)
NGTE	ACD-AG CAPITAL DEPRECIATION (BIL LL PER YR)	
NOTE	LAC-LIFETIME AG CAPITAL (YEARS)	
R	ACI.KL=AP.K×F1PI	(202)
С .	FAPI=.2	(202.1)
NUTE	ACI-AG CAPITAL INVESTMENT (BIL LL PER YR)	
NOTE	FAPI-FPACT AG PRODUCT INVESTED (DIM)	
4	AL.K=NICL.K+ICL.K	(203) -
NOTE	AL-AGRICULTURAL LAND (HECTARES)	
1	RACLR.K=(AC.K/ALN)/(AL.K/ALN)	(2)4)
C	ALN=360000	(204.1)
NUTE	RAULR-RELATIVE AG CAPL LAND RATIG (DI4)	
NJIE	AUNTAG LANU INITIAL (HEUTAPES)	(
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MODEL NAME = NRDH - 1 (CASE 1)

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· •	_NU 11⊞. .λ	UKRTULQOVATAM DELIANDA VALANDA V	17621
	ļΑ turstare	JILAN-JULIANALAN	ALC 007
÷.,	NUTE		
	A	$GDR_{A}F_{\bullet}K = AP_{\bullet}K + (1 - EAP_{1})/J_{1}F_{\bullet}K$	12:17
	NOTE	GAGDPWE-G.J.P. PER WORKER IN FARAING (LL/YR-PERSUN)	ર ંડેવર ઉ
	NOTE	R.DP ULATION SECTOR in association of the second structure of the second s	
	_Δ	IRP.•K=AC.•K*FACIA	(209)
	• C • • •	FA-DIR=-1	(209-1)
	NOTE	TRP-IRRIGATION PRODUCT (BIL LL PER YR)	
	NOTE	- FADIR-FRACT AG DUTPUT TO IRRIGATION (DIM)	Sec. C.
	411	JPICU.K=TABLE(JPICUT.IE.K/IEW.0.40,4)	(21.)
	Т	JPICUT=.37/225/21/18/15/13/112/112/115/11/11	(210.1)
	NOTE	UPICH-LOBS PER TRAIGATION CAPITAL UNIT (PERSONS/LL ES)	
		11T_K=1PTCh_K*JE_K/100000	(211)
	NOTE	STINGSTOURS IN TODICATION (DEPCONE)	1411
			( 21 2)
	NOTE	CODDUTER DID DED STEVED TH TOUTPATTON (1) DED VE DEL D	
	UNU K⊞. Sa	BUREWITHDOUGH PER WURNER IN IRRIGATION LLE PER IR PER P A DARDA WETADIELA DACHT AC WILAGH DE DE DA	CH SUNI
	A. 	$AJPAUJ \bullet K = I AJLE (AJALUI \bullet AL \bullet K/ALN \bullet J \bullet LU \bullet Z)$	
	1	AJACU1=•27•157•137•117•17•1	1213-11
	NOTE	AJPAGU-AUDITIDNAL JUBS PER AG GAPITAL UNIT (PERSUNS/LL	=51
	2	JIAC.K=AJPACU.K#AC.K/100000	(214)
	NOTE	JIAC+JOBS EN AG CAPITAL (PERSONS)	
. 1	- : <b>A</b> '	TARJ.K=JIF.K+JII.K+JIAC.K	(215)
	NOTE	TARU-TOTAL AGERELATED JOBS (PERSONS) second of the	
	A	TAP.K=AP.K+IRP.K	(216)
	NOTE	TAP-TOTAL AGRICULTURAL PRODUCT (BIL LL PER YR)	1 - 3 - 6 - 2
	Action	RPI.K=(MD.K+BC.K)*(FCF.K-SCF.K)	(217)
	Δ.	FCF.K=CLIP(FMUGC+FBDGC15.0.TLME.K.5)	(217.1)
	A	SCF.K=CLTP(FMAGC+FBOGC+.15.0.TIME.K.45)	(217.2)
	1	$(IP \cdot K = (IP \cdot I + (DT) \cdot (NIPCR \cdot IK - ER \cdot IK + R) MR \cdot IK)$	(21.3)
	N T		(213.1)
	NOTE	HD_HDBAAL DIDHEATION LDED CONCY	(210.17
	NUIC.	UPPORDAN PUPULATION (PERJUNJ)	121 2 31
	U.	UPNELODEO	1210.21
	NUTE	UPN-UKDAN PUPULATIUN INITIAL (PEKSUNSI	1 21 21
	L.	KP.K=RP.J+(J))/INKPUK.JK=FUMM.JK)	12191
	N.		(219.1)
	NULE	REVERSENTED POPULATION INTITAL (PERSONS)	- 3. - 7. <b>3. 1</b> . 3 4. 5.
	C	RPN=1.2Eo	1217.021
	N91 E	RP-RURAL PUPULATION (PERSUNS)	
	Δ.	NP•K=UP•K+RP•K	(220)
	NUTE	NP-NATIONAL POPULATION (PERSONS)	
	A	WPCI.K=TABLE(WPCIT.TIME.K.0.100.10)	(221)
	T	WPCIT=1000/1200/1350/1450/1525/1575/1600/1620/1655/1645/1	ַ 0כֿפ
	NÚTE	WPCI-WORLD PER CAPITA INCOME (LL PER PERSON PER YR)	$A_{i,j} = (N_{i,j}^{-1}, i_{j,j}^{-1}, i_{$
	NOTE	WPCIN-WORLD PER CAPITA INC INITIAL (LL PER PERSON PER Y	RI)
	A	NPCI.K=GNP.K/NP.K	(222)
	NOTE	NPCI-NATIONAL PER CAPITA INCOME (LL PER PERSON PER YE)	1. A. 18
	Δ	RNPCI_K=NPCI_K/WPCI_K	(223)
	NOTE	- RNPCI-RELATIVE WATIONAL PER CAPITA INCOME (DIA)	1 5 2 1
	Δ.	RNPGIR.K=RNPCI.K/FNPCIN	(224)
	ĉ		(226 1)
	う。 20日本日	CHECKING NATE DED FADITA INFOME DATES (CIA)	
	NOTE	THE TRACTOR AND THE FUNCTION OF THE TREAM AND THE TRACTOR AND THE T	
	_NU4 ≿ ∧	REVELANTE TERMANE MALE MEN CAMINA INCOME NUMBER (USAM) Den Vetroite (Nottode Voden) in Dominia (Notes)	
	А <del>Т</del>	KK1+N〒1401は18×11+PPARJ+N/PPNAJ+K+ F+Z++01 0077-07 - 2717-1	1 2 2 3 3
	1		(223.1)
	NUTE	KRI-RELATIVE NUKAL INCUME (DIM)	

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## P- 15 RUN-

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Δ	PPARJ.K=TAP.K/TARJ.K	(220)
NOTE	PPARJ-PRODUCT PER AGERELATED JUB (LL PER PERSUN PER YR)	
Δ	PPNAJ.K=N4 GOP.K/NAJ.K	(227)
NOTE	PPNAJ-PRODUCT PER NON-AG JOB (LL PER PERSON PER YR)	
А	RRIR.K=RRI.K/RRIN	(228)
Ĵ.Ĉ	RRIN=.26	(228.1)
NOTE	RRIR-RELATIVE RURAL INCOME RATIO (DIM)	
NOTE	RRIN-FELATIVE RURAL INCOME NORMAL (DIM)	
Δ	KUMM.K=TABLE(RUMMT.RE.IF.K.0.6.1)	(229)
T	RUMMT=.05/0/03/04/05/06/07	(229.1)
NOTE	RUMM-RURAL TO URBAN MIGRATION AULT (FRACT/YR)	
7	RUMMR.K=OLINE3(RUMM.K.RLZ))	(230)
		(230.1)
NUTS	RUMME-RURAL TO URBAN MIGRATION MULT REALIZED (FRACTZYE)	
NULE.	REZI-REALIZATION TIME (YEARS)	
А т		(231)
.1 		(231.13
NUIE	MUPMEMUDERNIZATION DE URBAN PUPULATION MULT (1718)	(133)
а т	$PULPM \cdot K = \{ABL \exists \{PULPM\} \cdot PULK \cdot K, U \in I \cup \{Q\}\}$	(232)
	PULPMIEG/GUI/+-OUZ/GU3/GU3/GU	(232.14
NULE	PULPM-PULLUTIUN PUPULATIUN MULT (FRAUTZYR)	1
A	PULPME • N=OLINFS(POLPM• N•PED)	12321
	PEUED DED_DOLLHITTIH EEEECT DELAN (VENDEN	1222+11
SNU I I I		102.1
r C	NUPCRARE-OPARTOPUMARTNOPUMJ	12341
NOTE	NUPER-NATURAL HERAN POP CHANGE RATE (PERSONS/VEL	1234011
NOTE	NUPCE+NATURAL URBAN POP CHANGE FACTOR (FRACT/YR)	
3	FR.KI=HP.K*(FM.K+FF)	(235)
r	FF=.0167	(235.1)
NOTE	FR-EMIGRATION RATE (PERSONS/YR)	
NUTE	EF-EMIGRATION FACTOR (FRACT/YR)	
R	RUMR.KL=RP.K*(RUMMR.K+RUMF)	(236)
C	RU1F= .05	(235.1)
NUTE	RUMR-RURAL TO URBANMIGRATION RATE(PERSONS/YR)	
NOTE	RUME-RURAL TO UPBAN MIGRATION FACTOR (FRACT/YR)	
ĸ	NRPCR.KL=RP.K*(RPCM.K+NRPCF)	(237)
C	NRPCF=.033	(237.1)
NOTE	NRPCK-NATURAL KURAL POP CHANGE RATE (PERSONS/YR)	
NOTE	VRPCE-NATURAL RUFAL PUP CHANGE FACTOR (FRACT/YR)	
⊿	EM.K=TABLE(EMI.RNPCIR.K.0.3.5)	(236)
т	EMT=.1/.02/0/0167/03/03/03	(238.1)
NOTE	EN-EMIGRATION MULTIPLIER (FRACT/YR)	
A	MRPM. K=DLINF3 (MUPM.K.MDT.K)	(239)
NOTE	MRPM-MODERNIZATION OF RURAL POPULATION MULT (1/ YR).	
۵	MDT.K=MDTN*TABLE(REFRMT.(RPEF.K/RP.K)/(UPEFN/UPN).0.8.8)	(240)
Т	PEFRMT=1.5/.5/.3/.2/.2/.2/.2/.2/.2/.2/.2	(240.2)
C	$M_{1})T N = 10$	(240.1)
NUTE	MOT-MODERNIZATION DISSEMINATION TIME (YEARS)	
NOTE	REFRMT-RELATIVE EDUC FACIL RURAL MULT (DIM)	
4	HRPM.K=TABLE(HEPMT,(RPHF.K/RP.K)/(RPHEN/RPN).0,16.2.1.8)	(241)
T	HRPMT =009/.0045/.005/.005/.005/.005/.005/.005/.00	(241.1)
NOTE	HRPM-HEALTH FURAL POPULATION MULT (1/YR)	
۵	UPCM.K=MUPM.K+POLPMR.K	(242)
Δ	RPCM.K=MRPM.K+HRPM.K	(243)
A	GDP.K=NAGDP.K+TAP.K	(244)
NOTE	GUP-GRUSS (PUMESTIC PRODUCT (BIL LL PER YR)	

• • • •			
5.5	1993 <u>(</u> 1997)	SWICY.K=SWICY.J+(DT)(SWIC.JK)	(245)
تن	N N	SWICY = SWICYN	(245.1)
	C	SWICYN=480E6	(245.2)
	NOTE	SWICY-SURFACE WATER IMPOUNDMENT CAPACTY (CU METERS)	
	Α	IMC.K=SWICY.K*UIMC	(240)
	С	UIMC=.02	(246.1)
· •	NOTE	IMC-IMPOUNDMENT MAINTENANCE COST (LL/YR)	
	NOTE	UIMC-UNIT IMPOUNDMENT MAINT COST (LL/M3-YR)	
	A	FBSW.K=CLIP (0,FBSWN,SWICY.K,MSWICY)	(247)
	C	FBSNN=-8	(247.1)
25	С	MSWICY=1000E6	(247.2)
•••	NOTE	FBSW-FRACT BUDGET TO SURF WATER (DIM)	
37	NUTE	MSWICY-MAX SURF WATER IMPOMT CAP (M3)	
	A	ICC.K=ICCND*SWICY.K/SWICYN	(248)
9	C	ICCNO=1.0	(248.1)
	NOTE	ICC-IMPDMT CONSTRUCTION COSTS (LL/M3) (ICCN=WUCN*.4/SWI)	CYNI
81	R	SWIC.KL=MAX(0, ((WUC1.JK-WUCD.JK) *FBSW.K-IMC.K)/ICC.K)	(249)
	NUTE	SWIC-SURF WATER IMPOMT CONSTRUCTION (MB/YR)	
43	A	$DER \cdot K = \{MC \cdot K + BC \cdot K + AC \cdot K\} / \{MCN + BCN + ACN\}$	(250)
	NUTE	DER-DEMAND RATID	1
<b>45</b>	A		(251)
	L C		(251.1)
47	L	DEND-DDY FEASON HATED DENAND (H2)	(201.2)
	NOTE	AUDNEANNIAL BATED DEMAND (M2/VD)	1 - A. M. A. L.
49	NOTE		
_ :	A	DSUS_K=FAR #FEDS+MIN(SUICY_K_FAR#(1-FEDS))	(252)
51.	ā	FAR=4800F6	(252.1)
	č	FFDS=_1	(252.2)
22	NOTE	DSWS-DRY SEASON WATER SUPPLY (M3)	
	NOTE	EAR-EXPLOITABLE ANNUAL RAINFALL (M3)	
	NOTE	FFDS-FRACT FALLING IN DRY SEASON (DIM)	
57	Δ.	HED.K=SWICY.K*KHPMPY	(253)
	C	KHP MP Y=2.5	(253.1)
59	NOTE	HED-HYDRDELECTRIC OUTPUT (KWH/YR)	<u> </u>
	NOTE	KHPMPY-KWH PER CU METER PER YR (KWH/M3-YR)	na na stran trans
51	Α	TED.K=DER.K*EDN	(254)
	C	EDN=2000E6	(254.1)
3	NOTE	TED-TOTAL ELECTRICITY DEMAND (KWH/YR)	
	NUTE	EDN-ELECTRICITY DEMAND NORMAL (KWH/YR)	
	NUTE	PHYSICAL INFRASTRUCTURE - HIGHWAYS	
· ·	L		(255)
1	N		(200.11
		HIV HIV I AND VII GMETEDO / I ANG_VII	
3		HEN KAUK KAUKAITU	12561
			(256.1)
5	č	1 7H=1 500	(256-2)
	NATE	HIED-HWY LAND FRACTION OCCUPTED (DIM)	1230021
7	NOTE	IPK-IAND PER KILOMETER (HA/KM-LAND)	
0	NOTE	LZH-LAND ZONED HWYS (HA)	н 1. с. н. с.
7	Á	HCC.K=HCCN*HCCM.K	(257)
. 4	C	HCCN=212500	(257.1)
	NOTE	HCC-HWY CONSTRUCTION COST (LL/KM-LANE)	
<b>२</b> -	Δ	HCCM.K=TABLE(HCCMT.HLFD.K.G.12)	(258)
	Т	HCCMT=.9/.9/1/8/25	(258.1)
15	NOTE	HCCM-HWY CONSTR COST MULT (DIM)	1 <u>1</u> .

MODEL NAME = NRDM - 1 (CASE 1)

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P-17 RUN-         MODEL NAME = NRUM - 1 TCASE 11           25         A         UMC-VNIT MAINTEVANCE COST (LL/LANE-KM-YR)         (259)           27         C         MCFM-750         (259,1)           28         A MC-VNIT MAINTEVANCE COST (LL/LANE-KM-YR)         (259,1)           29         A         MCFM-750         (259,2)           21         C         UMC-NAIL SELECT         (261,2)           23         A MCC KAULK KUMC,K         (261,2)           24         MCFM-750         (251,2)           25         A         MCC KULK KUMC,K         (261,2)           26         MCL FLANC KUMC,K         (261,2)           26         MCTE         HUM-FIGHAA         USER REVEWUES (LL/YR)           36         NOTE         HUM-FIGHAA         USER REVEWUES (LL/YR)           37         L         UDA-VIDA         (262,1)           37         L         UDA-VIDA         (262,1)           37         L         UDA-VIDA         (262,1)           38         NOTE         HUM-FIGHAA         USER           39         C         UIDA-VIDA         KULK KUMC,K         (264,1)           30         C         UIDA-VIDA         KULK KUK KUMC,K	21	ан 1910 - Ал		a de la companya de l La companya de la comp
A         UMCLK=UMCN=NCF.K/NCFN         (259)           25         NOTE         UNC=UNIT MAINTEWANCE COST (LL/LANE=KM=YR)         (259.1)           7         C         NCFM=700         (259.2)           7         C         NCFM=700         (259.2)           7         C         NCFM=700         (260)           8         HMC.K=HLK.K=MUAC.K         (261.2)           9         A         HMC.K=LETT=LTF.JK=LTFD.JK)+K4V.K=HUR=HMC.KJ/HCC.K         (261.2)           10         C         FLTM=450         (261.2)           11         C         HUDS-HTMC CONSTRUCTION (LNN=-KM/YK)         (262.1)           12         NOTE         HUT=HONT CONSTRUCTION (LNN=-KM/YK)         (262.1)           13         NOTE         HUT=HONT CONSTRUCTION (LNN=KM/YK)         (262.1)           14         UID-UPDER INCOME DWELLINGS (KCDMS)         (262.2)           15         MOTE         HUTD=100FR INCOME DWELLINGS (KCDMS)         (263.1)           16         LID-LON INCOME DWELLINGS (KCDMS)         (263.1)           17         ROPPHRENTADEK,K=NPMYAY,K-SUBEL)         (265.1)           18         TOD.K=100K         HUDENTADEK         (266)           19         C         INDTE         (266)         (26	23	P- 1	7 RUN- MODEL NAME = NRDM - 1 (CASE 1)	•
MOTE         UNC-UNIT MAINTEVENCE COST (LL/LANE-KM-YR)         (259.1)           27         C         MCRM-750         (259.2)           28         A         HWC.KL-(FLITH*(LTFI.JK-LTFD.JK)+4V.K*HUR-HMC.K)/HCC.K         (261)           29         A         HWC.KL-(FLITH*(LTFI.JK-LTFD.JK)+4V.K*HUR-HMC.K)/HCC.K         (261)           29         A         HWC.KL-(FLITH*(LTFI.JK-LTFD.JK)+4V.K*HUR-HMC.K)/HCC.K         (261)           20         NOTE         HUR-HURLANGLONG         (261)           21         U         HUR-HURLANGLONG         (262)           30         NOTE         HUD-KHUCHW CONSTRUCTION (LL/KR)         (262)           31         U         HURLANDANG SECTOR         (262)           32         U         HURLANDANG SECTOR         (262)           34         UID-UPPER INCOME DWELLINGS (RCD45)         (263)           35         NUTE         LID-UDN         (263)           36         C         ID-LOM INCOME DWELLINGS (RCD45)         (264)           36         NUTE         LID-LOM INCOME DWELLINGS (RCD45)         (265)           37         R DPPM-REALANDE (RDPMT.DEK AFMPN/A'K.K08H1)         (265)           38         RDPPM-REALANDE (RDPMT.DEK AFMPN/A'K.K08H1)         (265)           34 <td>75</td> <td>۵</td> <td>UMC.K=UMCN*NCF.K/NCFN</td> <td>(259)</td>	75	۵	UMC.K=UMCN*NCF.K/NCFN	(259)
27         C         NCFN=750         (259.1)           28         HMC,K=HK,K=MUGLK         (260)           29         A         HMC,K=HK,K=MUGLK         (261)           21         C         FLTH=,85         (261)           21         C         FLTH=,85         (261,1)           23         NJTE         HMYC-NUWY CONSTRUCTION (LANE-K/YR)         (261,2)           23         NJTE         HMYC-NUWY CONSTRUCTION (LANE-K/YR)         (262,1)           24         HOLSANDO         (262,2)         (262,2)           25         NOTE         HUR-HIGHAAY USER REVENUES (LL/YR)         (262,2)           26         NOTE         HUR-HIGHAAY USER REVENUES (LL/YR)         (262,2)           27         L         UTO,VHOPRE INCOME OWELLINGS (RCD4S)         (262,2)           28         NOTE         UTO-HOPRE INCOME OWELLINGS (RCD4S)         (263,1)           29         L         LTO,K=LTO,K=LTAK,K=LTOR,K=LTOR,JK         (263,1)           30         C         LTO,K=LTO,K=CMPONT,DER,Z=MPONYA,K=LTOR,JK         (264)           31         C         LTO,K=UTAL DAFELLINS (NTOMES)         (264)           32         C         TOU-TOTAL DAFELLINS UNITS (RCD4S)         (265,1)           33	<i></i>	NOTE	UMC-UNIT MAINTENANCE COST (LL/LANE-KM-YR)	
C         UMCN=3233         (259,2)           29         A         HMCK_KLK, X4UHCLK         (260)           21         C         FLTH=85         (261)           21         C         HUTK-KLK, X4UHCLK         (261)           22         HUTK-KLK, X4UHCLK         (261)         (261)           23         NOTE         HUTK-HAMAY USER REVENUES (LL/7R)         (262)           24         UID × MEDIA J+(DIR, JK-UIDR, JK-UIDR X, JK)         (262)         (262)           26         UID × MEDIA J+(DIR, JK-LICR, JK-LICR, JK)         (263)         (263,1)           27         L         UID × UID × MEDIA X+KLICR, JK-LICR, JK)         (263,1)           27         A         RDPPMEDA X+KLARPMY/A'X, K, 0.84:1)         (263,1)           28         A         C         CID × UID × MEDIA         (264)           29         A         TOU-TOTAL D+LLINS UNITS (RCONS)         (264)           20         TDU-TOTAL D+LLINS UNITS (	27	3	NCFN=750	(259.1)
29       A       HWC.KLEFLTH*(LTFL.JK-LTFD.JK)+4V.K*HUR-HMC.K1/HCC.K       (201)         51       C       FLTH*.05       (201)         51       C       HUT.KLEFLTH*(LTFL.JK-LTFD.JK)+4V.K*HUR-HMC.K1/HCC.K       (201)         51       C       HUT.800       (201)         51       C       HUT.800       (201)         53       NDTE       HUR-HOLTAL TANS IN HWYS (DIM)       (202)         54       HUT.HTEPLCT LAND TANS IN HWYS (DIM)       (202)         55       HUT.HTEPLCT LAND TANS IN HWYS (DIM)       (202)         56       HUT.HTEPLCT LAND TANS IN HWYS (DIM)       (202)         57       L       UID.K-WID.4+(DT)(UICR.JK-UIDR.JK-LICR.JK)       (202)         56       MOTE       HUT.HDPER IVCOME DWELLINGS (RCDMS)       (203)         57       L       LID.4-LIDN       (203)       (203)         58       A       TUD.4-K+LIDN       (KCMS)       (203)         59       A       TUD.4-K+LIDN       (KCMS)       (204)         50       KCPMTA-C/LA       KCMPAN/A-K+O-RA       (204)         51       RCPMTA-C/LA       HELLING (KCDMS)       (204)         52       A       TUDN-K-MCME DWELLING (KCDMS)       (204)         54<	<b>—</b> /	C	UMCN= 3333	(259.2)
R         HWC.KL={FLTH*{LTF1.JK-LTF0.JK}+4V.K*HUR-HMC.K1/HCC.K         (261-1)           1         C         HUR=300         (261-1)           21         C         HUR=300         (261-1)           23         NJTE         HUT-HW CONSTRUCTION (LANE-K4/YR)         (261-2)           23         NJTE         HUT-HW CONSTRUCTION (LANE-K4/YR)         (262)           24         HUTOK         (262)         (262)           25         NUTE         HUD-K100, J+(DT)(UICR.JK-UIDR.JK+UIDR.JK)         (262)           26         UID-UDDN         (262-1)         (262-1)           26         UID-UD-DPER INCOME DWELLINGS (RCD4S)         (263-1)           26         LIDIK-LD.J+(DL)/HIDR.JK+LICR.JK-UDR.JK)         (263-1)           26         NOTE         LID-LOW INCOME DWELLINGS (RCD4S)         (263-1)           26         NOTE         LID-LOW INCOME DWELLINGS (RCD4S)         (264)           37         TOU-TOTAL DAELLINS UNITS (RCD4S)         (264)         (265)           38         A         RDD-RADICALES (RDPMT.DEK.KMURP/MAR.K-08-01)         (265, 2)           39         TOL-LOW INCOME DWELLING CANDIN         (264)           30         NOTE ROPP-ROC1/13/14/14/6/1.5/1.5/1.5/1.5/1.5         (265, 2)           30	29	Δ.	HMC.K=HLK.K*UMC.K	(260)
51         C         FLTH=.85         (261.2)           33         NJTE         HUR=.800         (261.2)           34         NJTE         HUR=.400         (261.2)           35         NOTE         HUR=.HERCT LAND TRANS IN HWYS (DIM)         (262.2)           36         NOTE         HUR=.HIGH.AW USER REVENUES (LL/YR)         (262.1)           37         L         UID.K-WID.J.H.(DTH/UICR.JK-UIDR.JK-UIDRX.JK)         (262.1)           36         UID.UDPER INCOME DWELLINGS (RCD4S)         (262.2)           37         L         UIDUPPER INCOME DWELLINGS (RCD4S)         (263.1)           36         LIDLOW INCOME DWELLINGS (RCD4S)         (263.1)           37         N         LID-LOW INCOME DWELLINGS (RCD4S)         (264)           36         T.DTOTAL DAELLING UNITS (RCC4S)         (264)           37         R DPPM.F.R.TABLE.ERDPPMT.DES.K.#NPN/AV.K.60.8.1)         (265)           36         RDPPM.F.RTABLE.ERDPPMT.DES.K.#NPN/AV.K.60.8.1)         (265)           37         R DPPMT.PERTABLE.ENDERDPHT.DES.K.#NPN/AV.K.60.8.1)         (265)           38         RDPPM.F.RTABLE.ENDERDPHT.DES.K.#NPN/AV.K.60.8.1)         (266)           39         NDTE NDPFTALINE UNDID         (265)           300         RDPPM.F.STABLEE.ENDERDP		R	HWYC.KL=(FLTH*(LTFI.JK-LTFD.JK)+MV.K*HUR-HMC.K)/HCC.K	(261)
33         NOTE         HAYC-HAY COISTAUCTION (LANE-KM/YR)           34         NOTE         HUR-HIGHARY USER REVENUES (LL/YR)           35         NOTE         HUR-HIGHARY USER REVENUES (LL/YR)           36         NOTE         HUR-HIGHARY USER REVENUES (LL/YR)           37         L         UID.K-UID.J+(OTI/UIGR.JK-UIDR.JK-UIDRX.JK)         (2621)           37         L         UID.K-UID.J+(OTI/UIGR.JK-UIDR.JK-UIDRX.JK)         (2621)           37         L         UID.K-UID.J+(OTI/UIDR.JK-LICR.JK-UIDRX.JK)         (2631)           38         NOTE         UID-UOPPER         NUCME DWELLINGS (RCO4S)         (2631)           36         LID.K-UID.K-UID.K         (2631)         (2632)           37         DU TOTAL DAELLING UNITS (RCO4S)         (264)           36         R DPPM.F.TABLE (RDPPNT.DER.KAMPN/A)-K.V.84/1.5/1.5         (265)           37         R DPPMT-REATABLE (RDPPNT.DER.KAMPN/A)-K.V.84/1.5/1.5         (265)           38         MOTE         RDPPMA-RIABLE (RDPNT.DER.KAMPN/A)-K.V.84/1.5/1.5         (266)           39         NOTE         RDPPMA-RIABLE (RDPNT.DER.KAMPN/A)-K.V.84/1.5/1.5/1.5         (266)           300TE         RDPPM-RIABLE (RDPNT.DER.KAMPN/A)-K.V.84/1.5/1.5/1.5         (266)           300TE         RDPPM-RIABLE (RDPNT.DER.KAMPN/A)-K.V.8	51	C C	FLTH= •85 HUR=300	(261.1)
MOTE         PLTH-FP.CT LAND TAANS IN HWYS (DIM)           15         NOTE         HUB-HIGHAAY USER REVENUES (LL/YR)           16         NOTE         HUDSING SECTOR           17         L         UID.4+OID.J+(DI/ULGR.JK-UIDR.JK-UIDRX.JK)         (262.1)           17         L         UID.4+OID.J+(DI/ULGR.JK-UIDR.JK-UIDRX.JK)         (262.1)           18         UID.4+OPFR         NNOME         (262.2)           19         C         UIDA-LOEG         (262.2)           11         LID.K=UID.J+(DI/ULDR.JK+LICR.JK-LIDR.JK)         (263.1)           12         C         UIDA-LOEG         (264.1)           10         L.D.WIDR.JK-LION         (264.1)         (264.1)           11         L.D.WIDR.JK-LION         (264.1)         (265.1)           10         KDPP4-KABLE(ROPPMT.OEK.KWNP/N2-K+0.8-11)         (265.1)         (265.1)           10         RDPP4-KOAS DESIRED PER PERSON MULT (DIM)         (265.1)         (266.1)           10         RDPA-ROAS DESIRED PER PERSON MULT (DIM)         (266.1)         (266.1)           10         RDPA-ROAS DESIRED PER PERSON MULT (DIM)         (266.1)         (266.1)           10         RDPA-ROAS DESIRED PER PERSON MULT (DIM)         (266.1)         (266.1)           10 <td>22</td> <td>NOTE</td> <td>HWYC-HWY CONSTRUCTION (LANE-KM/YR)</td> <td></td>	22	NOTE	HWYC-HWY CONSTRUCTION (LANE-KM/YR)	
35         NOTE         HUR-HIGHAAY USER REVENUES (LL/YR)           37         L         UID.X=UID.; (UIDR.JK-UIDR.JK-UIDRX.JK)         (262.1)           37         L         UID.X=UID.; (UIDR.JK-UIDR.JK-UIDRX.JK)         (262.1)           37         L         UID.X=UID.; (UIDR.JK-UIDR.JK-UIDRX.JK)         (262.1)           36         UID-UPPER INCOME DWELLINGS (RCO4S)         (263.1)           37         L         UID-UPPER INCOME DWELLINGS (RCO4S)         (263.1)           38         UID-UDV         (263.1)         (263.1)           39         C         UID-UPPER INCOME DWELLINGS (RCO4S)         (263.1)           41         LID-LOW INCOME DWELLINGS (RCO4S)         (263.1)         (263.1)           43         C         UID-UD-UD INCOME DWELLINGS (RCO4S)         (264.1)           44         ROPPAK-KI-ABLE(ROPPMIDE SK.K=XMPN/M-X-K-0.8-81)         (265.1)         (265.1)           47         R         ROPPAK-KI-ABLE(ROPPMIDE DM COLLING DEADLING DEADLING (CE05.1)         (266.1)           47         R         ROPPAK-RIABLE(ROPPMIDE PER PERSON MULT (DIM)         (266.1)           51         R         UIDRX-KL=(UID-K/LUID K/LUID EADLING DEADLING DEAD	2.5	NOTE	FLTH-FFACT LAND TRANS IN HWYS (DIM)	
37       L       UID.x + UID. J+ (DT) + (UICR. JK-UIDR.X,JK)       (262)         39       L       UID.+1.0E6       (262.1)         39       L       UIDUPPER INCOME DWELLINGS (RCD4S)       (263.1)         41       L       LID.*E1D.Y       (263.1)         43       L       LID.+LON       (263.2)         44       LID.LDN       (263.1)         45       A       TDU.*E1D.Y       (264)         46       NOTE       LID-LON       (264)         47       A       RDPPM.*ETABLE (RDPPM.TOEX.*KWPPMYAPX.*C.0.8.1)       (265.1)         47       A       RDPPM.*ETABLE (RDPPM.TOEX.*KWPPMYAPX.*C.0.8.1)       (265.1)         48       NDTE       TDU.*C.1.33/1.42/1.48/1.5/1.5/1.5       (265.1)         49       NDTE       NDTE RDPPM-RDC4S DESIRED PER PERSON MULT (DIM)       (266)         41       L       UID.*C.LID.*LUID.*LUID.*LUID.*LUID.*DEFOIDENCY       (266.1)         42       RDPM.*RDC4S DESIRED PER PERSON MULT (DIM)       (266.1)         43       TDD.*C.*TDU.*K       (266.1)       (266.1)         44       TDD.*C.*TDU.*K       (266.1)       (266.1)         45       NDTE       RDPPM-RDVARDPPM-K       (266)         46       TDD	35	NOTE	HUR-HIGHWAY USER REVENUES (LL/YR) HOUSING SECTOR	
N         UID-UIDN         (262.1)           39         C         UIDH:::065         (262.2)           NDTE         UID-UPPER INCOME DWELLINGS (RCDMS)         (263.1)           41         L         LID.K=LIDN         (263.1)           43         C         LIDH:::066         (263.2)           44         NOTE         LID-LOW INCOME DWELLINGS (RCDMS)         (263.1)           45         A         TOU.K=UIDK         (263.2)           46         NOTE         TOU-TOTAL DAE MELLINGS (RCDMS)         (264)           47         A         ROPPM.EXTOTAL DAELING UNITS (RCOMS)         (265)           47         A         ROPPM.EXTOTAL DAELLING UNITS (RCOMS)         (265)           47         A         ROPPM.EXTOTAL DAELLING UNITS (RCOMS)         (265)           47         A         ROPPM.EXTOTAL DAELLING UNITS (RCOMS)         (265.1)           47         NOTE SUPPER TACCH.EXTOPPER NOLT (DIM)         (265.1)         (265.1)           48         UIDRX.KL=(UID.K/LUDIPERUD         (266.1)         (266.1)           49         UIDRX.KL=(UID.K/LUDIPERUD         (266.1)         (266.1)           50         NOTE         RDP-PROMS DESIRED PER PERSON MULT (DIM)         (266.1)           51	37	Ľ	UID.K=UID.J+(DT)(UICR.JK-UIDR.JK-UIDRX.JK)	(262)
99         C         UIDN=1.0E6         (262.2)           41         L LID.K=LID.J+(DT)(UIDR.JK+LICR.JK-LIDR.JK)         (263.1)           42         LID-LDN         (263.1)           43         C LIDN=1.0E0         (263.2)           44         L LD-LON INCOME DWELLINGS (KDDMS)         (264.2)           45         A TDJ.K-WID.K+LID.K         (264)           46         NOTE         TDJ-TOTAL DAELLING UNITS (R0CM3)           47         A RDPM-K=TABLE (RDPMT.DEK.KWNPM/M-X-K-0.8.1)         (265.1)           47         R RDPMT=0/1/1.2/1.33/1.42/1.48/1.5/1.5/1.5/1.5         (265.1)           47         R RDPMT=0/1/1.2/1.42/1.48/1.5/1.5/1.5/1.5         (266.1)           47         R RDPMT=0/1/1.2/1.42/1.48/1.5/1.5/1.5/1.5         (265.1)           47         R RDPMT=0/1/1.2/1.42/1.48/1.5/1.5/1.5/1.5         (265.1)           47         R RDPMT=0/1/1.2/1.42/1.48/1.5/1.5/1.5/1.5         (265.1)           47         R RDPMT=0/1/1.2/1.42/1.48/1.5/1.5/1.5/1.5         (266.1)           47         RUDRX-KL=(UID.K/LUID.4FUIDD         (265.1)           40         RUDRX-KL=CUID.K/LUID.4FUIDD         (266.1)           41         TDD-KALDS DESIRED PER PERSON MULT (DIM)         (266.1)           53         R DPP.ROMS DESIRED PER PERSON AULT (DIM)		N	UID=UIDN	(262.1)
NOTE       UID-UPPER INCOME OWELLINGS (RCDMS)       (203)         41       LID.K+LID.J+(DT)(UIDR.JK+LICR.JK-LIDR.JK)       (203.1)         43       C       LID.LID.K+LID.K       (203.1)         44       NOTE       ID-LOW INCOME DWELLINGS (RCDMS)       (203.1)         45       A       TD-LAK-UID.K+LID.K       (264)         46       NOTE       TOU.K+UID.K+LID.K       (265)         47       A       RDPPM.K=TABLE(R.DPPMT.DEK.K+MPN/MP.K.0.8.0.8.1)       (265.1)         47       A       RDPPM-RTCALLASJ1.42/1.48/1.5/1.5/1.5       (265.1)         47       A       RDPPM-RCALS DESIRED PER PERSON MULT (DIM)       (265.2)         47       R       DPM-RCALS DESIRED PER PERSON MULT (DIM)       (266.1)         48       UIDRX-UPPER INCOME DWELLING DE4DLITION RATE (RDDMS/YF)       (266.1)         49       NOTE       UDRX-UPPER INCOME DWELLING DE4DLITION RATE (RDDMS/YF)       (266.1)         50       NOTE       NDTE-NPD.K       (266.1)       (267)         51       R DDP-RDOMS DESIRED PER PERSON MULT (DIM)       (267)       (268)         52       NOTE       DDD-HELLING UNTI DEFICIENCY (RDDMS)       (269.1)         53       RDD-FOTAL D-EELING DEAND (RDDMS)       (269.2)         54 <td< td=""><td>39</td><td>C</td><td>UIDN=1.0E6</td><td>(262.2)</td></td<>	39	C	UIDN=1.0E6	(262.2)
1       L       LID.K=LID.J+(3T)(UIDR.JK+LICR.JK-LIDR.JK)       (263)         1       N       LID=LIDN       (263.1)         13       C       LID=LIDN       (263.2)         143       C       LID=LON       NICOME DWELLINGS (ROD4S)       (264)         15       A       TOU.K=UID.K       (265.2)       (265.2)         16       A       TOU.K=LID.K       (265.2)       (265.2)         17       R DPPM.K=TABLE(ROPPMT.LORE.K*MPN/N2-K.0.8+1)       (265.2)         18       NOTE       TDPM-MEXTABLE(ROPPMT.FORE.K*MPN/N2-K.0.8+1)       (265.2)         19       C       NPM-MEXTABLE(ROPPMT.FORE.K*MPN/N2-K.0.8+1)       (265.2)         10       NOTE       RDPPM-RDG4S DESIRED PER PERSON MULT (DIM)       (266)         10       NOTE       UDRX-KL=(UID.K/LUID)*FUIDD       (266.1)         10       NOTE NOPEROMS DESIRED PER PERSON MULT (DIM)       (266.1)         10       R       DUD-NELLING UNIT DEFICIENCY (RIDMS)       (266)         10       K=DD-K+RERDPN-ROMS DESIRED PER PERSON MULT (DIM)       (266)       (269)         10       K=DD-K-ROMS DESIRED PER PERSON MULT (DIM)       (266)       (269)         10       K=DD-K-KERDPN-ROMS DESIRED PER PERSON MULT (DIM)       (268)       (268)		NOTE	UID-UPPER INCOME DWELLINGS (RCDMS)	
N       LID=LIDN       (263.2)         43       C       LID=LON       (263.2)         44       NOTE       LID=LON       (264)         45       A       TUJ_K=UID_K+LID_K       (264)         46       NOTE       TUJ_TOTAL DAELLING UNITS (RCCMS)       (264)         47       A       RDPPM_K=TABLE(RDPPMT,DEK_K=MNPN/N2,K-0.88.1)       (265.1)         47       A       RDPPM_K=TABLE(RDPPMT,DEK_K=MNPN/N2,K-0.88.1)       (265.1)         47       A       RDPPM_RDG4S       DESIRED PER PERSON MULT (DIM)       (265.2)         47       NOTE       RDPM=RJG4S       DESIRED PER PERSON MULT (DIM)       (266.1)         47       NOTE       RDPM=RJG4S       DESIRED PER PERSON MULT (DIM)       (266.1)         47       NOTE       RDPM=RJG4S       DESIRED PER PERSON MULT (DIM)       (266.1)         47       NOTE       NOTE       RDPM=RDG4S       (266.1)         48       DUGA_K=TDD_K-RDPPM_RDPPM_K       (267)       (266.1)         59       A       DLO_K=TDD_K       (268)       (268)         59       A       DLFO_K=TDU_K=LING UNTI DEFICIENCY (RJOMS)       (269.2)       (269.2)         50       NOTE       LZD=LAND PER DEALLING UNCLICSO MELLING (ACUPIS)	41	L	LID.K=LID.J+(DT)(UIDR.JK+LICR.JK-LIDR.JK)	(263)
43         C         LIDN=1.060         (263.2)           44         NDTE         LID-LOW INCOME DWELLINGS (KDDMS)         (264)           45         NDTE         TDU-K=UID.K+LID.K         (264)           46         NDTE         TDU-TOTAL D=ELLING UNITS (RCCMS)         (265)           47         A         RDPPM-K=TABLE (RDPPMT.DEK.K*NPN/N2-K+0-8H)         (265)           47         A         RDPPM-K=TABLE (RDPPMT.DEK.K*NPN/N2-K+0-8H)         (265)           47         A         RDPPM-K=TABLE (RDPPMT.DEK.K*NPN/N2-K+0-8H)         (265)           47         A         RDPPM-K-TABLE (RDPPMT.DEK.K*NPN/N2-K+0-8H)         (265)           47         A         RDPPM-K-TABLE (RDPPMT.DEK.K*NPN/N2-K+0-8H)         (265)           47         NDTE         RDPPM-K-004S DESIRED PER PERSON MULT (DIM)         (266)           58         A         TDD-KENTOK-K-TDU.K         (266)           59         A         DLO-K-NETAL D#ELLING DEMAND (RDMS)         (269)           59         A         DLFO-K=TDU.K         (269)           50         C         LZD-LAND ZONED FOR DWELLING COUPLED (DIM)         (269-2)           51         NDTE         LDO-LAND ZONED FOR DWELLING COUPLED (DIM)         (270)           52         A		N	LID=LIDN	(263.1)
NDTE       L1D-LOW INCOME DWELLINGS (RDUMS)       (264)         45       A       TOU-KUID.KLID.K       (264)         47       A       RDPPM.KETABLE (RDPPMT, DEK.KKNPN/NP.K.0.81)       (265)         47       A       RDPPM.KETABLE (RDPPMT, DEK.KKNPN/NP.K.0.81)       (265)         47       K       RDPM.KETABLE (RDPPMT, DEK.KKNPN/NP.K.0.81)       (265)         47       R       RDPM.KETABLE (RDPMT, DEK.KKNPN/NP.K.0.81)       (265)         47       R       RDPM.KETABLE (RDPMT, DEK.KKNPN/NP.K.0.81)       (265)         49       C       NPN=36       (265.2)         50       NDTE       RDPM-R024S DESIRED PER PERSON MULT (DIM)       (266)         51       R       UIDRX-UPPER INCOME DWELLING DE4DLITION RATE (RDOMS/YF)       (266)         53       C       RDPP-ROOMS DESIRED PER PERSON 4ULT (DIM)       (267)         54       TDD-TOTAL DWELLING UNIT DEFICIENCY (ROMS)       (268)         57       NDTE       DDD-DWFLLING UNIT DEFICIENCY (ROMS)       (269)         58       A       DUK-KEPDU-KAND PRDNAKDEDWLZD       (269)         59       A       DUFO-KEPDU-KAND PROBLING CACUPIED (DIM)       (269-2)         50       C       LZD=LAND ZONED FOR DWELLINGS (M2)       (270)         51	43	C	LIDN=1.0E6	(263.2)
45       A TOU. K=100. K=100. K       (264)         47       A RDPPM.K=TABLE(KDPPMT.DEK.K=MPN/MP.K.0.8.1)       (265)         47       A RDPPM.K=TABLE(KDPPMT.DEK.K=MPN/MP.K.0.8.1)       (265)         47       A RDPPM.K=TABLE(KDPPMT.DEK.K=MPN/MP.K.0.8.1)       (265)         48       NOTE RDPPM.K=TABLE(KDPPMT.DEK.K=MPN/MP.K.0.8.1)       (265.1)         49       C NPN=3E6       (265.2)         40       NOTE RDPPM-3C4S DESIRED PER PERSON MULT (DIM)       (266)         51       R UIDRX-UPPER INCOME DWELLING DE4DLITION RATE (RDDMS/YF)       (266)         52       C RDPPN=75       (266)         53       A TDD.K=MP.K=K#DPDM.K       (267)         54       TDD.K=MDP.K       (267)         55       A TDD.K=ND.K=NDUH.K       (268)         56       NOTE DUD-OMELLING UNIT DEFICIENCY (ROMS)       (269)         57       NOTE TDD-TOTAL DWELLING DEMAND (ADDMS)       (269)         58       A DLFO-K=TDU.K       (269)         59       A DLFO-K=TDU.K=LPDU/LZD       (269)         50       LIDD-LAND PER DWELLING UNTIT (S) METERS/RGGM)       (270)         59       DCCM==T/2.8/1/2/4/7       (270)         50       DCCM==T/2.8/1/2/4/7       (270)         51       DCCM=ELLING CONST		NOTE	LID-LOW INCOME DWELLINGS (ROOMS)	10/11
NOTE       TDU-TUTAL DAELLING ONITS (RUCHS)         47       A ROPPMA.KTABLE (ROPPNT.DEK.KNPV/N2.K.0.8.1)       (265)         47       A ROPPMA.KTABLE (ROPPNT.DEK.KNPV/N2.K.0.8.1)       (265)         47       A ROPPMT.CIAL (ROPNT.DEK.KNPV/N2.K.0.8.1)       (265)         47       A ROPPMT.CIAL (ROPNT.DEK.KNPV/N2.K.0.8.1)       (265)         47       A ROPPMT.CIAL (ROPNT.DEK.KNPV/N2.K.0.8.1)       (265)         48       C ROPPMT.CIAL (ROPNT.DEK.KNPV/N2.K.0.8.1)       (265)         49       C NOTE       ROPPMT.CIAL (ROPNT.DEK.KNPV/N2.K.0.8.1)       (266)         51       R UIDRX.KL=(UID.K/LUID)*FUIDD       (266)       (266)         52       C ROPPN=.75       (266)       (267)         53       C ROPP.ROOMS DESIRED PER PERSON MULT (DIM)       (267)         54       T DD.K=MP.K &ROPPN*ROPPM*K       (267)         55       A TOD.K=MP.K &ROPPN*ROPPM*K       (267)         56       A TOD.K=TOD.K       (268)         57       NOTE       DD-OMELLING UNIT DEFICIENCY (ROMS)       (269)         58       A DLFO.K=TOD.K & ROPPN*ROPPM.K       (269)       (269)         59       A DLFO.K=TOD.K & LDVCLZD       (269)       (269)         50       DLFO.K=TOD.K=LDVCLZD       (269)       (269)     <	45		IDU.K=UID.K+LID.K	(264)
47AROPPMENTALABLE (ROPPMENDER NEWPMENDER)(2051)47TROPPMENTALAZILAZILAZILAZILAZILAZILAZILAZILAZILAZ		NUTE	IDUTIVIAL DWELLING UNITS (RUUMS)	(3(5)
49       C       NPN-3E6       (265.2)         51       R       UIDRX-KL=(UID.K/LUID)*FUIDD       (266.1)         51       R       UIDRX-UPPER INCOME DWELLING DEADLITION RATE (RODMS/YF)         53       C       RDPPN=75       (266.1)         54       TDD.K=NP.K *ROPPN*ROPPM.K       (267)         55       A       TDD.K=NP.K *ROPPN*ROPPM.K       (267)         56       NOTE       DUD-DWFLLING UNIT DEFICIENCY (ROMS)       (268)         57       NOTE       DUD-DWFLLING UNIT DEFICIENCY (ROMS)       (269)         58       A       DLFO-K=TDU.K       (269)         59       A       DLFO.K=TDU.K       (269)         59       A       DLFO-K=TDU.K       (269)         50       C       LZD=100C0E5       (269)         51       NOTE       DLFO-LAND ZONED FOR DWELLING UNIT (SD METERS/RCOM)       (270)         51       NOTE       LZD-LAND ZONED FOR DWELLING UNIT (SD METERS/RCOM)       (271)         52       A       DCCM-K=TABLEIOCCMT.DLFO.K.0.12)       (270)         54       DCCM-K=TABLEIOCCMT.DLFO.K.0.12)       (270.1)         55       A       LICC.K=LICCN*DOCM.K       (271.1)         56       NOTE       LICCC-LOW INCOME	47	A	KUPPM+K=IADLC(KUPPM)+UEK+K*NPN/N2+K+U+0+1) DDDD4T=0/1/1 2/1 22/1 42/1 42/1 5/1 5/1 5	12001
49       C. MARADIA       MARADIA       C. MARADIA       MARADIA       C. MARADIA       C. MARADIA       MARADIA       MARA		r	NDN-254	1203+11
51RUIDRX.KL=(UID.K/LUID)*FUIDD(266)51RUIDRX.KL=(UID.K/LUID)*FUIDD(266)53CRDPPN=75(266.1)53ATDD.K=PP.ROMS DESIRED PER PERSCN 4ULT (DIM)(2671)55ATDD.K=PP.KARDPPM*RDPPM*K(2671)56DUD.K=TDD.K=TDU.K(268)57NOTEDUD-DWELLING UNIT DEFICIENCY (RDDMS)59ADLFD.K=TDU.K*LPDU/LZD(269)61CLZD=10000E5(269.1)62C LPDU=200(269.1)63NOTELPD-WELLING LAND FRACT CCCUPIED (DIM)64NOTELPDU=LAND PER DWELLING UNIT (S) METERS/RCCM)7NOTELPDU=LAND ZONED FOR DWELLINGS (M2)8ADCCM.K=TABLE(DCCMT.DLFO.K.0.1+.2)(270)9NOTELICCN=20000(271)1NOTELICCN=0000(271)1NOTELICCN=0000(271)3CLICCN+LICM (NCOME CONSTR COST (LL/ROOM)(272)4LICR-KL=(LIHP.K+RILH+JK)/LICC.K(273)6LICR-KL=LID.K/LLID(273)7RLICR-KL=LID.K/LLID(273)9NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)11RUIDR-UPFER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)12NOTELIDR-LUD-LIFETIME LOW INCOME DWELLINGS (YR)13NOTELUD-LIFETIME DUPER INCOME DWELLINGS (YR)14NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)15NOTEUIDR-	49	NATE	RDPPM-ROPHS OFSTRED PER PERSON MULT (OTM)	1 20 30 21
51NDTEUIDRX-UPPERINCOMEDWELLINGDE4JLITIONRATE(RDDMS/YF)53CRDPPN=75(266.1)54TDD.K=NP.K*RDPPN*RDPPM.K(267)55ATDD.K=NP.K*RDPPN*RDPPM.K(267)56SDUD-WELLING UNIT DEFICIENCY (RDDMS)(268)57NOTEDDD-DWELLING UNIT DEFICIENCY (RDDMS)(269)58ADLFO.K=TDU.K(269)59ADLFO.K=TDU.K*LPDU/LZD(269)61CLZD=LAND PERDWELLING UNIT (SQ METERS/RCGM)63NOTELDD-LAND PER DWELLING UNIT (SQ METERS/RCGM)64NOTELZD-LAND PER DWELLING (M2)65ADCCM-K=TABLE(OCCMT.DLFO.K.0.12)7DCCMT=77.8/1/2/4/7(270.1)7NOTELICC.N=ULING CONSTRUCTION COST MULT (DIM)8LICC.K=LICON+DCCM-K(271.1)9NOTELICC-LOW INCOME (DWELLING) CONSTR COST (LL/RDOM)9NOTELICR-LOW INCOME (DWELLING) CONSTR COST (LL/RDOM)9NOTELICR-LOW INCOME CONSTR RATE (RDOMS/YR)9NOTELIDR-LOW INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)9NOTELIDR-LOW INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)9NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)9NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)9NOTELIDR-LOW PER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)9NOTELUD-LIFETIME LOW INCOME DWELLINGS (YR)9NOTELUD-LIFE	~ ~	R	$  TDRX_K  = ( UTD_K/  UTD ) + EUTDD$	(266)
53CRDPPN=.75(266.1)NDTERDPP-ROOMS DESIRED PER PERSCN 4ULT (DIM)(267)55ATDD.K=NP.K*RDPPN*RDPPM.K(267)5DUD.K=TDD.K-TDU.K(268)57NUTEDUD-DHELLING UNIT DEFICIENCY (RDDMS)58ADLFO.K=TDU.K*LPDU/LZD(269)61CLZD=10000E5(269.1)63NOTELDFO-DHELLING LAND FRACT CCCUPIED (DIM)63NOTELDPU-LAND PER DWELLING UNIT (SO METERS/RGGM)7NOTELZD-LAND ZONED FOR DWELLINGS (M2)7ADCCMK=TABLE(OCCMT.DLFO.K.0.12)(270.1)1NOTELCCK=LICCNDCCM.K(271.1)3CLICCN=2000J(271.1)4LICCK=LICCNDCCM.K(271.1)5RLICR-LOW INCOME (DWELLING) CONSTR COST (LL/RDOM)5NOTELICCN-DUME CONSTR RATE (ROOMS/YR)6NOTELIDR.KL=(LIP.K*RILIH.JK)/LICC.K(273.1)7RLIDR-LOW INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)9NOTELID-LIFETIME LOW INCOME DWELLINGS (YR)11RUIDR.KL=(UID.K/LUID) (274.1)12CGUIDB-2013NOTELID-LIFETIME LOW BALLING DETERIGRATION RATE (ROOMS/YR)14NOTEUIDE.Z15NOTEUIDE.LINCOME DWELLING DETERIDRATION RATE (ROOMS/YR)16NOTELUID-LIFETIME LOW BALLING DETERIDRATION RATE (ROOMS/YR)16NOTEUIDE.Z17NOTELUID-LIFETIME LOW PER INCOME DWELLINGS (YR)<	51	NOTE	UIDRX-UPPER INCOME DWELLING DEADLITION RATE (ROOMS/YE)	.2007
33NOTERDPP-ROOMS DESIRED PER PERSON 4ULT (DIM)55ATDD.K=MPEK*RDPN*RDPPM*K(267)5DUD.K=TDD.K*TDU.K(268)57NGTEDUD-DWELLING UNIT DEFICIENCY (ROOMS)58ADLFO.K=TDU.KK59ADLFO.K=TDU.KK61CLZD=10000E562(269)163NOTE64LZD-LAND ZONED FOR DWELLING UNIT (SQ METERS/RCGM)65NOTE66NOTE67DCCM.K=TABLE(DCCMT,DLFO.K*0.12)7DCCMT=.7/.8/1/2/4/78LICC.K=LICN*DCCM.K9NOTE9NOTE9NOTE9NOTE9NOTE9NOTE9NOTE9NOTE9NOTE10R11R12C13C14NOTE15NOTE16LICR-LOW INCOME ONSTR RATE (ROOMS/YR)17NOTE18NOTE19NOTE10LICR-LOW INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)10NOTE11R12C13C14LIDP-LIFFTIME LOW INCOME DWELLINGS (YR)15NOTE16UIDR-UPPER INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)11NOTE12NOTE13C14UIDR-VPPER INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)15	£2	C	RDPPN=. 75	(266.1)
55ATDD.K=NP.K*RDPPN*RDPPM.K(267)5DUD.K=TDU.K-TDU.K(268)57NGTEDUD-DWELLING UNIT DEFICIENCY (RODMS)59ADLFO.K=TDU.K*LPDU/LZD61CLZD=10000E562NOTEDUD-LAND PER DWELLING UNIT (SQ METERS/RCGM)63NOTELPDU-LAND PER DWELLINGS (M2)64DCCM.K=TABLELOCMT,DLFO.K.0.12)(270)7DCCMT.T/.8/1/2/4/7(270)1NOTEDCCM-DWELLING CONSTRUCTION COST MULT (DIM)4LICC.K=LIGCN*DCCM.K(271)5NOTELICR-LOW INCOME (DWELLING) CONSTR COST (LL/RODM)5NOTELICR-LOW INCOME (DWELLING) CONSTR COST (LL/RODM)5NOTELICR-LOW INCOME (DWELLING) CONSTR COST (LL/RODM)5NOTELICR-LOW INCOME (DWELLING) CONSTR COST (LL/RODM)6NOTELICR-LOW INCOME (DWELLING) CONSTR COST (LL/RODM)7CLIDR-LOW INCOME DASTR RATE (RODMS/YR)8LIDR.KL=(LIP.K+RILIH-JK)/LICC.K(273)9NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (RODMS/YR)10NOTELIDR-LOW INCOME DWELLINGS (YR)11RUIDR.KL=(UID.K/LUID)*(1-FUIDD)(274)12NOTEUIDR-LIPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)13NOTEUIDR-LIPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)14NOTEUIDR-LIPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)15NOTEUIDR-LIPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)	55	NOTE	RDPP-ROOMS DESIRED PER PERSON AULT (DIM)	
SDUD.K=TDD.K-TDU.K(268)57NGTEDUD-D#FLLING UNIT DEFICIENCY (RODMS)59ADLFD.K=TDU.K*LPDU/LZD61CLZD=10000E562NOTE63NOTE64DCCM.K=TABLEING LAND FRACT OCCUPIED (DIM)63NOTE64LZD-LAND ZONED FOR DWELLINGS (M2)65A7DCCM.K=TABLE(DCCM.K.LOLFO.K.0.12)8DCCM.K=TABLE(DCCM.K.LOLFO.K.0.12)9NOTE9NOTE9NOTE9NOTE9NOTE10R11C12LIDP.LOW INCOME DWELLING DETERIORATION RATE (RODMS/YR)11C12NOTE13C14NOTE15NOTE16LIDP.LOW INCOME DWELLING DETERIORATION RATE (RODMS/YR)16NOTE17LIDP-LOW INCOME DWELLING DETERIORATION RATE (RODMS/YR)18NOTE19NOTE11C12NOTE13NOTE14NOTE15NOTE16NOTE17NOTE18NOTE19NOTE19NOTE19NOTE10(274)11C12NOTE13NOTE14NOTE15NOTE16NOTE17LIDP-LIFETIME UPPER INCOME DWELLING (YR)16 </td <td>55</td> <td>Α</td> <td>TDD.K=NP.K *RDPPN*RDPPM.K</td> <td>(267)</td>	55	Α	TDD.K=NP.K *RDPPN*RDPPM.K	(267)
57NGTEDUD-DWFLLING UNIT DEFICIENCY (RODMS) NUTETDD-TOTAL DWFLLING DEMAND (RODMS)59ADLFO.K=TDU.K*LPDU/LZD(269)61CLZD=10000E5(269.1)63NOTEDLFO-DWFLLING LAND FRACT OCCUPIED (DIM)(269.2)63NOTELZD-LAND ZONED FOR DWFLLINGS (M2)(270)7DCCM.K=TABLE(DCCMT.DLFO.K.0.12)(270)1NOTEDCCM-DWFLLING CONSTRUCTION COST MULT (DIM)4LCC.K=LICCN*DCCM.K(271.1)5NOTELICC.V=2000J6NOTELICR.KL=(LICN*DCCM.K7RLICR.KL=(LIHP.K*RILH.JK)/LICC.K8LIDR.KL=LID.K/LLID(273.1)9NOTELIDR-LOW INCOME DWFLLING DETERIGRATION RATE (RODMS/YR)9NOTELIDR-LOW INCOME DWFLLINGS (YR)11RUIDR.KL=(UID.K/LUID)*(1-FUIDD)12RLIDR-LOW INCOME DWFLLINGS (YR)13CFUIDD=2214NOTEUIDR-UPPER INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)15NOTEUIDR-LIFETIME UPPER INCOME DWELLINGS (YR)		S	DUD.K=TDD.K-TDU.K	(268)
NOTETDD-TOTAL DWELLING DEMAND (RODMS)59ADLFD.K=TDU.K*LPDU/LZD(269)61CLZD=10000E5(269.1)62NOTEDLFD-DWELLING LAND FRACT OCCUPIED (DIM)(269.2)63NOTELZD-LAND PER DWELLING UNIT (SA METERS/RCOM)(270)63NOTELZD-LAND ZONED FOR DWELLINGS (M2)(270)7DCCMT.*.7/.8/1/2/4/7(270.1)1NOTEDCCM-OWELLING CONSTRUCTION COST MULT (DIM)4LICC.K=LICCN*DCCM.K(271.1)5NOTELICC.HOW INCOME (DWELLING) CONSTR COST (LL/ROOM)5NOTELICR.LCH.PK.*RILIH.JK//LICC.K(272)7RLIDR.KL=(LID.K/LLID(273.1)9NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)9NOTELIDR-LOW INCOME DWELLING (YR)11RUIDR.KL=(UID.K/LUID)*(1-FUIDD)(274.1)13CFUIDD=2(274.1)14NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)15NOTEUIDR-UPPER INCOME DWELLING S(YR)	57	. NOT E	DUD-DWELLING UNIT DEFICIENCY (RODMS)	
59ADLFD.K=TDU.K*LPDU/LZD(269)61CLZD=10000E5(269.1)61CLZD=100C0E5(269.2)63NDTEDLFD-DWELLING LAND FRACT CCCUPIED (DIM)(269.2)63NDTELPDU-LAND PER DWELLINGS (M2)(270)7NDTEDCCM.K=TABLE(DCCMT.DLFD.K.0.1.2)(270.1)1NOTEDCCM-DWELLING CONSTRUCTION COST MULT (DIM)(271.1)1NOTEDCCM-DWELLING CONSTRUCTION COST MULT (DIM)(271.1)3CLICC.K=LICCN*DCCM.K(271.1)4LICC.K=LICCN*DCCM.K(271.1)5RLICC-LOW INCOME (DWELLING) CONSTR COST (LL/RDOM)6NOTELICC-LOW INCOME CONSTR RATE (RDOMS/YR)6RLIDR.KL=LID.K/LLID7CLIDB-KL=LID.K/LLID9NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (RDOMS/YR)11RUIDR.KL=(UID.K/LUID)*(1-FUIDD)12AUIDR.KL=(UID.K/LUID)*(1-FUIDD)13NOTELUID-LIFETIME LOW INCOME DWELLINGS (YR)14NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (RDOMS/YR)15NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (RDOMS/YR)		NUTE	TDD-TOTAL DWELLING DEMAND (ROOMS)	
CLPDU=200(269.1)61CLZD=100C0E5(269.2)NDTEDLFO-DWELLING LAND FRACT OCCUPIED (DIM)(269.2)63NOTELPDU-LAND ZONED FOR DWELLINGS (M2)(270)ADCCM.K=TABLE(DCCMT.DLFO.K.0.1.2)(270)TDCCMT=.7/.8/1/2/4/7(270.1)1NOTEDCCM-DWELLING CONSTRUCTION COST MULT (DIM)4LICC.K=LICCN*DCCM.K(271)5CLICCN=20000(271.1)6NOTELICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)(272)7RLICR-LOW INCOME CONSTR RATE (ROOMS/YR)(273.1)9NOTELIDR-KL=LID.K/LLID(273.1)9NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)11RUIDR-KL=(UID.K/LUID)*(1-FUIDD)(274.1)12CLUID-LIFFTIME LOW INCOME DWELLINGS (YR)14NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)15NOTELUID-LIFETIME UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)	59	Δ	DLFO.K=TDU.K*LPDU/LZD	(269)
61       C       LZD=10000E5       (269.2)         NDTE       DLFC-DWELLING LAND FRACT CCCUPIED (DIM)       (269.2)         63       NOTE       LPDU-LAND PER DWELLING UNIT (SD METERS/RCOM)         NOTE       LZD-LAND ZENED FOR DWELLINGS (M2)       (270)         A       DCCM.K=TABLE(DCCMT.DLFO.K.0.1.2)       (270.1)         T       DCCMT=.7/.8/1/2/4/7       (270.1)         1       NOTE       DCCM-DWELLING CONSTRUCTION COST MULT (DIM)         1       A       LICC.K=LICCN+DCCM.K       (271.1)         3       C       LICCN-20000       (271.1)         4       DCC-LOW INCOME (DWELLING) CONSTR COST (LL/RDOM)       (272.1)         5       NOTE       LICC-LOW INCOME (DWELLING) CONSTR COST (LL/RDOM)         6       NOTE       LICCN-LOW INCOME CONSTR RATE (RDOMS/YR)         7       R       LICR-LOW INCOME CONSTR RATE (RDOMS/YR)         8       R       LICR-LOW INCOME DWELLING DETERIORATION RATE (RDOMS/YR)         9       NOTE       LID-LIFETIME LOW INCOME DWELLINGS (YR)         11       R       UIDR-LIFETIME LOW INCOME DWELLINGS (YR)         13       NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)         14       NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR) <td></td> <td>C</td> <td>LPDU=200</td> <td>(269.1)</td>		C	LPDU=200	(269.1)
NOTEDLFO-DWELLING LAND FRACT OCCUPIED (DIM)63NOTELPDU-LAND PER DWELLING UNIT (SQ METERS/RCGM)NOTELZD-LAND ZONED FOR DWELLINGS (M2)ADCCM.K=TABLE(DCCMT.DLFO.K.0.12)TDCCMT=.77.8/1/2/4/71NOTENOTEDCCM-DWELLING CONSTRUCTION COST MULT (DIM)ALICC.K=LICCN*DCCM.KALICC.K=LICCN*DCCM.KCLICCN=20000NOTELICC-LOW INCOME (DWELLING) CONSTR COST (LL/RODM)5NOTENOTELICR-LOW INCOME CONSTR RATE (RDOMS/YR)7RRLIDR.KL=LID.K/LLID9NOTE10LID=509NOTE11R12UIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)14NOTE15NOTE16NOTE17LUID-LIFETIME LOW INCOME DWELLINGS (YR)18NOTE19NOTE10LIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)13C14FUIDD=215NOTE16NOTE17LUID-LIFETIME UPPER INCOME DWELLINGS (YR)	61	C	LZD=10000E5	(269.2)
63       NOTE       LPDU-LAND PER DWELLING UNIT (SJ METERS/RGGM)         NOTE       LZD-LAND ZONED FOR DWELLINGS (M2)       (270)         A       DCCM.K=TABLE(DCCMT.DLFO.K.012)       (270.1)         T       DCCMT=.7/.8/1/2/4/7       (270.1)         1       NOTE       DCCM-DWELLING CONSTRUCTION COST MULT (DIM)       (271.1)         1       A       LICC.K=LICCN*DCCM.K       (271.1)         3       C       LICCN=20000       (271.1)         4       LICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)       (272)         5       NOTE       LICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)       (273.1)         5       NOTE       LICR-LOW INCOME CONSTR RATE (RJOMS/YR)       (273.1)         6       LIDR.KL=(LIMP.K+RILIN-JK)/LICC.K       (273.1)       (273.1)         7       R       LIDR-LOW INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)       (273.1)         9       NOTE       LIDR-LOW INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)       (274.1)         11       R       UIDR.KL=(UID.K/LUID)*(1-FUIDD)       (274.1)         12       C       LUID=.2       (274.1)         13       C       FUID=.2       (274.2)         14       NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/Y		NOTE	DLFO-DWELLING LAND FRACT OCCUPIED (DIM)	
NOTELZD-LAND ZONED FOR DWELLINGS IM2)ADCCM.K=TABLE(DCCMT.DLFO.K.O.1.2)TDCCMT=.7/.8/1/2/4/7NOTEDCCM-DWELLING CONSTRUCTION COST MULT (DIM)ALICC.K=LICCN+DCCM.KCLICCN=20000NOTELICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)NOTELICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)NOTELICR-LOW INCOME CONSTR RATE (RDOMS/YR)RLICR.KL=(LIHP.K+RILIH.JK)/LICC.KRLIDR.KL=LID.K/LLIDQ(273)CLIDR-LOW INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)NOTELIDR-LOW INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)NOTELIDR.KL=(UID.K/LUID)*(1-FUIDD)11RQFUIDD=30CFUIDD=40NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)NOTEUIDR-UPPER INCOME DWELLING S (YR)NOTELUID-LIFETIME UPPER INCOME DWELLINGS (YR)	63	NOTE	LPDU-LAND PER DWELLING UNIT (SU METERS/ROUM)	
ADCCM.R=TABLETDCCMT+DLPD.K+0011+2/ T(270)TDCCMT=+TABLETDCCM+bLPD.K+0011+2/ T(270-1)1NOTEDCCM-DWELLING CONSTRUCTION COST MULT (DIM)1ALICC.K=LICCN+DCCM+K3CLICCN=200003NOTELICC-LOW INCOME (DWELLING) CONSTR COST (LL/RDOM)5NOTELICR-LOW INCOME CONSTR RATE (RDOMS/YR)5RLICR+KL=(LIHP+K+RILIH+JK)/LICC+K7CLIDR+KL=LID-K/LLID7CLIDR+LOW INCOME DWELLING DETERIORATION RATE (RDOMS/YR)9NOTELID-LIFFTIME LOW INCOME DWELLINGS (YR)11RUIDR+KL=(UID+K/LUID)*(1+FUIDD)12LUID=30(274+1)13CFUIDD=-214NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)15NOTELUID-LIFFTIME UPPER INCOME DWELLINGS (YR)		NULE	LZU-LANU ZUNEU FUR UWELLINGS IMZZ	(270)
1NOTEDCCM-DWELLING CONSTRUCTION COST MULT (DIM)1ALICC.K=LIGCN*DCCM.K3CLICCN=200003NOTELICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)5NOTELICR-LOW INCOME CONSTR RATE (RDOMS/YR)5RLICR.KL=(LIHP.K+RILIH.JK)/LICC.K7RLIDR.KL=LID.K/LLID7CLLID=509NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)9NOTELIDR-LOW INCOME DWELLING S(YR)11RUIDR.KL=(UID.K/LUID)*(1-FUIDD)12CLUID=3013CFUIDD=.214NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)15NOTELUID-LIFETIME UPPER INCOME DWELLINGS (YR)		A . <del>T</del>	DUCHONFIABLEIDUUMIDUERUOKOUDIDOZI DUCHTE 7/ 9/1/2/4/7	(270 1)
1       A       LIGC.K=LIGCN*DCCM.K       (271)         3       C       LIGCN=20000       (271.1)         3       NOTE       LIGC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)       (272)         5       R       LIGR-LOW INCOME CONSTR RATE (ROOMS/YR)       (272)         7       R       LIDR.KL=(LIHP.K+RILIH.JK)/LICC.K       (273)         7       R       LIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)       (273.1)         9       NOTE       LIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)         9       NOTE       LIDR-LOW INCOME DWELLINGS (YR)         11       R       UIDR.KL=(UID.K/LUID)*(1-FUIDD)       (274.1)         13       C       FUIDD=.2       (274.2)         NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)         15       NOTE       LUID-LIFETIME UPPER INCOME DWELLINGS (YR)		NOTE	DCCM_DUC[17071727477 DCCM_DUC[17NC_CONSTRACTION_COST_MULT_(DIM)	1210.11
3CLICCN=20000(271.1)3NOTELICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)5NOTELICR-LOW INCOME CONSTR RATE (ROOMS/YR)5RLICR.KL=(LIHP.K+RILIH.JK)/LICC.K(272)7RLIDR.KL=LID.K/LLID(273)7CLIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)9NOTELID-LIFETIME LOW INCOME DWELLINGS (YR)11RUIDR.KL=(UID.K/LUID)*(1-FUIDD)(274)12LUID=30(274.1)13CFUIDD=.2(274.2)14NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)15NOTELUID-LIFETIME UPPER INCOME DWELLINGS (YR)	1	A	LICC.K=LICCN+DCCM_K	(271)
3NOTELICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)5NOTELICR-LOW INCOME CONSTR RATE (ROOMS/YR)6RLICR.KL=(LIHP.K+RILIH.JK)/LICC.K7RLIDR.KL=LID.K/LLID7CLIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)9NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)11RUIDR.KL=(UID.K/LUID)*(1-FUIDD)12LUID=30(274.1)13CFUIDD=.214NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)15NOTELUID-LIFETIME UPPER INCOME DWELLINGS (YR)			LICCN=20000	(271, 1)
5       NOTE       LICR-LOW INCOME CONSTR RATE (RDOMS/YR)         7       R       LICR.KL=(LIHP.K+RILIH.JK)/LICC.K       (272)         7       R       LIDR.KL=LID.K/LLID       (273)         7       C       LID=50       (273.1)         9       NOTE       LID-LIFETIME LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)         9       NOTE       LID-LIFETIME LOW INCOME DWELLINGS (YR)         11       R       UIDR.KL=(UID.K/LUID)*(1-FUIDD)         12       C       FUID=30         13       C       FUIDD=.2         14       NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)         13       NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)         14       NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)	3	NOTE	LICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM)	
5       R       LICR.KL=(LIHP.K+RILIH.JK)/LICC.K       (272)         7       R       LIDR.KL=LID.K/LLID       (273)         7       C       LID=50       (273.1)         9       NOTE       LID-LIPETIME LOW INCOME DWELLING DETERIGRATION RATE (ROOMS/YR)         9       NOTE       LID-LIPETIME LOW INCOME DWELLINGS (YR)         11       R       UIDR.KL=(UID.K/LUID)*(1-FUIDD)       (274.1)         11       C       FUIDD=30       (274.1)         13       C       FUIDD=.2       (274.2)         NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)       NOTE         15       NOTE       LUID-LIFETIME UPPER INCOME DWELLINGS (YR)		NOTE	LICR-LOW INCOME CONSTR RATE (ROOMS/YR)	
7RLIDR.KL=LID.K/LLID(273)7CLLID=50(273.1)9NOTELIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)9NOTELLID-LIFETIME LOW INCOME DWELLINGS (YR)11RUIDR.KL=(UID.K/LUID)*(1-FUIDD)(274)11CFUIDD=30(274.1)13CFUIDD=.2(274.2)NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)1515NOTELUID-LIFETIME UPPER INCOME DWELLINGS (YR)	5 -	R	LICR.KL=(LIHP.K+RILIH.JK)/LICC.K	(272)
'       C       LLID=50       (273.1)         9       NOTE       LIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR)         NOTE       LLID-LIFETIME LOW INCOME DWELLINGS (YR)         11       R       UIDR.KL=(UID.K/LUID)*(1-FUIDD)       (274.1)         13       C       FUIDD=.2       (274.2)         NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)         15       NOTE       LUID-LIFETIME UPPER INCOME DWELLINGS (YR)		R	LIDR.KL=LID.K/LLID	(273)
9       NOTE       LIDR-LOW INCOME DWELLING DETERIORATION RATE (RODMS/YR)         NOTE       LID-LIFETIME LOW INCOME DWELLINGS (YR)         11       R       UIDR.KL=(UID.K/LUID)*(1-FUIDD)         12       C       LUID=30         13       C       FUIDD=.2         NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (RODMS/YR)         15       NOTE	. /	C	LLID=50	(273.1)
RUIDR.KL=(UID.K/LUID)*(1-FUIDD)(274)11CLUID=30(274.1)13CFUIDD=.2(274.2)13NOTEUIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)15NOTELUID-LIFETIME UPPER INCOME DWELLINGS (YR)	9	NOTE	LIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR) LLID-LIFETIME LOW INCOME DWELLINGS (YR)	
11       C       LUID=30       (274.1)         13       C       FUIDD=.2       (274.2)         13       NOTE       UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR)         15       NOTE       LUID-LIFETIME UPPER INCOME DWELLINGS (YR)		R	UIDR.KL=(UID.K/LUID)*(1-FUIDD)	(274)
C FUIDD=.2 NOTE UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR) NOTE LUID-LIFETIME UPPER INCOME DWELLINGS (YR)	11	C	LUID= 30	(274.1)
NOTE UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR) NOTE LUID-LIFETIME UPPER INCOME DWELLINGS (YR)	4.7	Ē	FUIDD=.2	(274.2)
NOTE LUID-LIFETIME UPPER INCOME DWELLINGS (YR)	15	NOTE	UIDR-UPPER INCOME DWELLING DETERIORATION RATE (ROOMS/YR	
	15	NOTE	LUID-LIFETIME UPPER INCOME DWELLINGS (YR)	

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25	NUTE	FOIDD-FRACI OPPER INCOME D.U. DEMULISHED (DIM)	
	R	UIGR。KL=UID。K ¥UICN ×UICM。K	(275)
	NOTE	- UICR-UPPER INCOME DWELLING CONSTR. RATE (ROOMS/YR)	et el se tracial se
	- ₫	UICM&K=TABLE(UICMT.DLFO.K.O.12)	(270)
	<b>.T</b>	UICMT=1/1/1/.8/.67/.0	(276.1)
• •	NOTE	UICH-UPPER INCOME CONSTRUCTION MULT (DIM)	1
	C	UICN=+03	(276.2)
÷	Δ		(277)
	ĉ	RENTN=500	1277.11
	NOTE	DENT DED DUCH INC (II /VD_DOOM)	
	- NOTE		al a Clara
25 -	NUIC	TTING WATTE WATTENDATION	13731
	A .		12701
37	U UNTE	I LEKNEI.UES	(2(8.1)
	NUTE	THER-TARIFF- RANSIT-ECADING PEVENUES (LL/YR)	lean and star
39	4	MFD.K=MC.K*UMCFD*ETEM.K	(279)
	C	UMCFD=•075E-3	(279.1)
	NOTE	MED-MANUE FUEL DEMAND (TON OIL EQUIVALENTS PER YR)	A second second
••••	NOTE	UMCED-UNIT MANUE CAPITAL FUEL DEMAND (TDE/YR-LL)	•
12	A	SFD.K={BC.K+WUC.K+TCC.K+ITF.K+PEF.K+PHF.K}*USCFD*ETEM.K	(283)
40	C	USCFD=+025E-3	(280.1)
40	NOTE	SFD-SERVICE SECTOR FUEL DEMAND (TOE/YR)	
45	NOTE	USGED-UNIT SERVICE CAPITAL FUEL DEMAND (TOE/YR-LL)	12112
· ·	Δ		12811
47	2	HACEn = .0755-2	(281.1)
	NICTE		1201011
49	NOTE	AND ADDITIONE FOR DELANAND ATTALIAN	
	STUN	UACEDEUNIT AGRI UAPITAL FUEL DEMAND (TUE/TRELL)	12001
51	A	UFU.KFIDU.KFUDFDFEIEM.K	12821
	C	UDFD=.3	(282.1)
53	NOTE	DFD-DOMESTIC FUEL DEMAND (TDE/YR)	
	NOTE	UDFD-UNIT DWELLING UNIT FUEL DEMAND (TOE/YR-ROOM)	
55	A	TFD。K=MV。K +UVFD +ETEM。 K	(283)
33	C	UVFD=2.5 methods and a second se	(283.1)
57	NOTE	TFD-TRANSPORTATION FUEL DEMAND (TOE/YR)	
31	NOTE	UVFD-UNIT VEHICLE FUEL DEMAND (TOE/YR-VEH)	$(\mathbf{f}_{i}) \neq \mathbf{f}_{i} \in [2\pi]_{\mathcal{F}_{i}}^{\infty}$
	A B	FIM.K=(MFD.K+SFD.K+AFD.K+DFD.K+TFJ.K)*NCF.K+(EUD.K*FEUDF.	K) (284)
<b>3</b> 7	NOTE	FIM-FUEL IMPORTS (LL/YR)	
	Δ.	NCE - K = TABLE (NCET. TIME - K.O. 50.10)	(285)
01.	Т	NCET=750/1500/2000/2300/2450/2500	(285.1)
	NOTE	NCE-NATIONAL CAST DE EUERS 411/TOEN	(20):11
6.3	D.	MVCD KI-MV KXAVCNAVACM K	12861
	Ċ		12001
	NOTE	NUCR NOTOR VEH CROUTH RATE (VEH/VO)	(200+1)
	NUTE	MYGR-MUIUR VEN GROWIN RAIL IVEN/TRV	
1	NUTE	MVGN-MUIUK VEH GKUWIH NUKMAL (I/TK)	10071
· .	L	$MV \cdot K = MV \cdot J + (UI) (MVGR \cdot JK)$	(287)
3	N		(287.1)
	ູເ	MVN=300000	(287.2)
5	NOTE	MV-MOTOR VEHICLES (VEH)	and the other
	Α	NMGE.K=NMGEN*(MO.K/NP.K)/MOPCN	(288)
7	<b>C</b>	MOPCN = 1667	(288.1)
/	C	NMGEN=. 25E 9	(288.2)
~	NOTE	NMGE-NET MANUE GOODS EXPORTED (LL/YR)	
9	NOTE	MODEN-MANUE OUTPHIT DER CAPITA NORMAL (LL/VR-DEDSON)	
		ADEE K-NGEENARD KIND KINDROPAL HURARE LEEN DEFENSURV NDEE K-NGEENARD KIND KINDROPAL HURARE LEEN DEFENSURV	12001
11	- A - C	$\mathbf{N} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} \mathbf{U} U$	12078
			1207011
13	. L		(20702)
	NUTE	NBSE-NEI BUSINESS SERVICES EXPURIED (LL/YR)	s e to e
15	NUTE	BUPUN-BUSINESS UUTPUT PER CAPITA NURMAL (LL/YR-PERSUN)	

		· · · · · ·
21		
	P-19 RUN- MODEL NAME = NRDM - 1 (CASE 1)	
- 23		
75	A NAPE.K=NAPEN*(AD.K/NP.K)/ADPCN	(290)
23	C AOPCN=27C	(290.2)
27	C NAPEN=.1559	(290.3)
.*	NOTE NAPE-NET AGRI PRODUCTS EXPORTED (LL/YR)	
29	NOTE AJPLN-AGRI JUTPUT PER CAPITA NJRMAL (LL/YR-PERSON)	1 20 11
	A GNP+KFGUP+K+IILK+K+NPGC+K+NDSC+K+NAPC+K+PIM+K	(291)
31	A ETEM.K=TABLE/FTEMT.DER.K.O.10.2)	(202)
<b>5</b> 5.	T = ETEM J = 1.15/.85/.65/.5/.4/.35	(292.1)
22.	NOTE ETEM-ENERGY EFFICIENCY TECHNOLDGY MULTIPLIER (DIM)	
35	A GTP.K=MP.K*F.HPGTP.K+BP.K*FBPGTP.K	(293)
	NOTE GTP-GOVT TRANSFER PAYMENTS (LL/YR)	
37	S GB.K=GP.K+GTP.K+TTLR.K*FTTLRB+FIM.K*FTAX	(294)
	C FTTLRB=1.0	(294.1)
39	C = F (AX = +2)	(294.2)
	NULE GBEGUVI BUDGET (LL/YKEVEN) NOTE ETTIDO EDACT TTI DEMEMBES TO DIMAN	
41	NOTE FILLER TAX (OTM)	
	S PPP_K=NP_K/(JTPH_K *FWPHY_K)	(295)
43	A FWPHY.K=TABLE(FWPHYT.JIPH.K.0.10000.10000)	(295.1)
45	T FWPHYT=1/.2/.16/.14/.13/.122/.115/.109/.104/.101/.10	(295.2)
	NOTE PPP-POP PER PHYSICIAN (DIM)	
47	NUTE FWPHY-FRACT WORKERS PHYSICIANS (DIM)	
	S PCEC.K=TED.K/NP.K	(296)
49	NUTE PLEC-PER LAPITA ENERGY CUNSUMPTION (TUE/YR-PERSON)	- イムハマト
	S MVPLOKEMVOK/NPOK Note Mvpc_motop vehicles ded cadito (vehided son)	(297)
51	A EDWA KETABI E (EDWAT, AND T, K, -2, 4, 1)	12081
<b>6</b> 7	$T = FP_{HA} T = -42/-41/-4/-38/-35/-32/-3$	(298.1)
23	NOTE FPWA-FRACT POP OF WORKING AGE (DIM)	(2)0027
55	S FEIF=JIF.K/(NAJ.K+TARJ.K)	(299)
55	NOTE FWIF-FRACT WORKERS EMPLOYED IN FARMING (DIM)	
57	S ANRPP.K=(UID.K+LID.K)/NP.K	(300)
	NOTE ARMPP-AVER NO ROOMS PER PERSON (ROOMS/PERSON)	
59	S FALI.K=ICL.K/(ICL.K+NICL.K)	(301)
	NUTE FALTFRACT AG LAND IRRIGATED (UIM)	(202)
61	C ALTNE 7	(302)
67	$C = \Delta I R T = 10$	(302.2)
63	NOTE ALT-ADULT LITERACY (FRACT)	
	NUTE ALRT-ADULT LITERACY REALIZATION TIME (YEARS)	
10 A. 10 A.	A ALM.K=TABLE(ALMT.UPEPCR.K+RPEPCR.K.0.24.2)	(303)
1	T ALMT=7/0/.12/.18/.21/.23/.245/.255/.262/.267/.27/.27/.2	7 (303.1)
	A UPEPCR.K=(UPEF.K/UP.K)/(UPEFN/UPN)	(304)
3	NUTE UPEPER-URBAN PUBLIC ED PER CAPITA RATIU	(205)
	A KPEPUKAKE(KPEPAK/KPAK)/AKPEPN/KPN)	(305)
5	NUTE REFORMANCE FOR CAPITA RATIO	12061
	T VHCMT = $3/1/0/01/04$	(306.1)
7	NOTE VHCM-VEH HWY CONGESTION MULT (DIM)	
o	S PUPU.K=(100)(UP.K/NP.K)	(307)
7	NOTE POPU-PERCENTAGE OF POPULATION URBAN	
44	A ANPI.K=(100) (NUPCR.JK+NRPCR.JK)/NP.K	(308)
	NOTE ANPI-ANNUAL NATURAL POPULATION INCREASE	
13	S PPWA.K=100*FPWA.K	(309)
·	NUTE PPWA-PERCENTAGE OF POPULATION OF WORKING AGE	13101
15	S FUPUENON#NFON/ANEA	(210)

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	25		NOTE POPDEN-POPULATION DENSITY (PERSONS / SO KM)	
	25		C AREA=10400	(310.1)
			S TBPGNP.K=(GNP.K-GDP.K)/GNP.K	(311)
			NOTE TBPGNP-TRADE BALANCE PERCENTAGE OF GNP	
			A PUNEM.K=TABLE(PUNEMT.(TLFO.K-JOBS.K)/TLFJ.K5.5.5)	(312)
	•••	* 11 - E	T = 20/0/30	(312.1)
			NOTE PLINEM-PERCENTAGE LINEMPL DYMENT	
				(313)
				(3)4)
			NOTE TIEGLIGINENTI HADAD ENDOS	
			NOTE THERE ALTER FOR A CUD AND AND AND AND AND AND AND AND AND AN	(212)
			DISTRICT DISTRICT AND	(2121
		•	NULE DEGNETOUUGEL AS FERVENTAGE OF GNP	
6.0			S TPPENRAKE(100)(GTPAK/GNPAK)	1315121
			NOTE IPPGNPTIKANSEER PAYMENTS AS PERCENTAGE. UP GNP	
•	39		S PHSUB.K=FPHS.K*(100-PHPS.K)	(317)
			NOTE PHSUB-PERCENTAGE HEALTH SUBSIDIZED	a kan bahar pada s
	4.4		A. STPHPS:K=TABLE(PHPST:(PHF.K/NP.K)/(PHEN/NPN).0:5:1)	(318)
			TracePHPST=90/80/70/60/50/40° 10,	(318.1)
1	63		NOTE OPHPS-PERCENTAGE HEALTHOIN PRIVATE SECTOR Provo Press Company	
• •	~~		S PESUB.K=FPES.K*(100-PEPS.K)	(319)
	45		NUTE PESUB-PERCENTAGE EDUCATION SUBSIDIZED	
-	42		A PEPS.K=TABLE(PEPST.(PEE.K/NP.K)/(PEEN/NPN).0.5.1)	(320)
1	/		T PEPST=60/50/40/30/20/10	(320.1)
	4/		NOTEPERSEPERCENTAGE_EDUCATION_IN_PRIVATE_SECTOR	
				13211
1	49		NOTE HODDOLIDSAN DODINATION DENSITY (DEDSONS/HECTADE)	
		· .	C ACCIT MARK FOR CLAILON DENSITY TREASONS/HECTARET	(222)
	51		D AFGIANTALON/JITON NOTE AFEIZ AVED FADA CIZE INFOT / FADAX	(322)
7			NUTE AFSIZ-AVER FARM SIZE (HEGT / FARM)	
	53		SUBSCHPLUSKERPUSKERUUUU Note - Food Food Stratter (kikeda) opted (koroscov plakka)	(323)
			NUTE FPUCFFUUU PER LAPITA (KILUUALURIES)/ (PERSUN-UAYF)	
6	55		S PALI-K=(ICL-K/AL-K)*100	(324)
			NOTE PALI-PERCENTAGE AGRI LAND IRRIGATED	
	57		Swith STSPC.K=TSPCN*TSPCM.K	(325)
			C 1.2 TSPCN=.05.4 (1) see plant of the reference of the reference will be the server of the second second second	(325.1)
· ·	50		A. T. TSP.CM.K=TABLE(TSPCMT+TCCR.K+0+9+1) as a set of the speed of the set	(325.2)
	<b>.</b>		TO TSPCMT=0/2/3.8/5.5/7/8.3/9.5/10.5/11.2/12	(325.3)
	61		NOTE TSPC-T.V. SETS PER CAPITAL COL	A state of s
	01		S CAPC.K=CAPCN*CAPCM.K	(326)
			C CAPCN=10	(326.1)
	تر ک		A CAPCM.K=TABLE(CAPCMT.TCCR.K.0.9.1)	(326.2)
			T $C\Delta PCMT = 2/1 \cdot 2/1 \cdot 8/1 \cdot 6/1 \cdot 5/1 $	(326-31
		-		1320031
				13291
	1		J HUTELLUNENLUTCUMAN DENCITY // ANELVMC/CO VAN	1 2 2 0 1
			NUTE THATPENTATIONAL DENSITE LEANETAMO/SULKMU	12201
	3		S SWEEPERSWILLSKINFOR	13291
			NOTE SWILPE-SORF WATER IMPORT LAPACITY PER CAPITA (M3/PER)	
	5		S FIPGNP.K=1FIM.K/GNP.K)*100	(330)
			NOTE FIPGNP-FUEL IMPORTS AS PERCENT OF GNP	2011 - 19 A.
	7		S QOL.K=NPCI.K+(10000*RRI)-(2000*POLR.K)	(331)
•	,		NOTE COOL-QUALITY OF LIFE	202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 - 202 
	Q		NOTE CONTROL	
	7		PRINT PUNEM, NPCI, RRI TO TO TO TO TAKE AND DESCRIPTION OF THE PRINT OF THE PUNEMENT OF THE PUNCHENT OF THE PUNEMENT OF THE PUNEMENT. PUNEMENT OF THE PUNEMENT. PUNEMENT OF THE PUNEMENT OF THE PUNEMENT OF THE PUNEMENT OF THE PUNEMENT. PUNE	
	4.4		PRINT OOL AND	· · · · · · · · · · · · · · · · · · ·
	11		PLOT MC=C.MO=O.MP=P	222 - 22
			PLOT FEUCH=H/WDSR=W	
	13		PLOT NB=N.DB=D.BB=R.BF=F	
	15		LECT AND HADDLE DAY THEY CONCERNED AND THEY AND A CONCERNED AND A CONC	

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# DEFINITIONS OF PARAMETERS

NRDM-2 25 AC-AGRICULTURAL CAPITAL (BIL LL) NOTE NOTE ACN-AGRICULTURAL CAPITAL INITIAL (BIL LL) 27 NOTE ACILR-AG CAPITAL IRRI LAND RATIO (LL PER HECT) NOTE AD-AGRICULTURAL DUTPUT (BIL LL PER YR) 29 NOTE AP-AGRICULTURAL PRODUCT (BIL LL PER YR) ACD-AG CAPITAL DEPRECIATION (BIL LL PER YR) NOTE 31 NOTE ACI-AG CAPITAL INVESTMENT (BIL LL PER YR) NOTE AL-AGRICULTURAL LAND (HECTARES) 33 NOTE ALN-AG LAND INITIAL (HECTARES) NOTE AJPACU-ADDITIONAL JOBS PER AG CAPITAL UNIT (PERSONS/LL E5) 35 NOTE AWDN-ANNUAL WATER DEMAND (M3/YR) NOTE AFD-AGRICULTURE FUEL DEMAND (TOE/YR-LL) 37 AOPCN-AGRI OUTPUT PER CAPITA NORMAL (LL/YR-PERSON) NOTE ARMPP-AVER NO ROOMS PER PERSON (ROOMS/PERSON) NOTE 39 NOTE ALT-ADULT LITERACY (FRACT) ALRT-ADULT LITERACY REALIZATION TIME (YEARS) NOTE 41 ANP I-ANNUAL NATURAL POPULATION INCREASE NOTE NOTE AFSIZ-AVER FARM SIZE (HECT / FARM) 43 NOTE AFPI-AVER FRACT PRODUCT INVESTED (DIM) NOTE AFIP-AVER FRACT INVESTMENT IN PLANT (DIM) 45 BOPCN-BUSINESS OUTPUT PER CAPITA NORMAL (LL/YR-PERSON) NOTE BPGNP-BUDGET AS PERCENTAGE OF GNP NOTE 47 BC-BUSINESS CAPITAL NOTE NOTE BCN-BUSINESS CAPITAL INITIAL (BIL LL) 49 NOTE BCR-BUSINESS CAPITAL RATIO(DIMENSIONLESS) BEUCR-BUSIN ELECT UTIL CAPITAL RATIO (DIMENSIONLESS) NOTE 51 BEDSM-BUSIN ELECT DEMAND SUPPLY MULT (DIMENSIONLESS) NOTE NOTE BWUCR-BUSIN WATER UTIL CAPITAL RATIO (DIMENSIONLESS) -53 NOTE BWDSM-BUSIN WATER DEMAND SUPPLY RATIO (DIMENSIONLESS) NOTE BTCCR-BUSIN TELE-COM CAPITAL RATIO (DIMENSIONLESS) 55 NOTE BCDSM-BUSIN COMMUN DEMAND SUPPLY MULT (DIMENSIONLESS) NOTE BTFCR-BUSIN TRANS FACIL CAPITAL RATID (DIMENSIONLESS) 57 NOTE BTDSM-BUSIN TRANS DEMAND SUPPLY MULT (DIMENSIONLESS) NOTE BCOR-BUSINESS CAPITAL OUTPUT RATIO (YEARS) 59 NOTE BO-BUSINESS OUTPUT (BIL LL PER YR) **BP-BUSINESS PRODUCT (BIL LL PER YR)** NOTE 61 BCD-BUSIN CAPITAL DEPRECIATION (BIL LL PER YR) NOTE NOTE BCI-BUSIN CAPITAL INVESTMENT (BIL LL PER YR) 63 NOTE **BE-BUSINESS ESTABLISHMENTS** NOTE BLFO-BUSINESS LAND FRACTION OCCUPIED (DIMENSIONLESS) NOTE BECN-BUSIN ESTAB COST NULT (DIMENSIONLESS) NOTE BA-BUSINESS ADDITIONS (ESTAB PER YR) 1 NOTE BR-BUSIN RESTORATIONS (ESTAB PER YR) BRP-BUSIN RESTORATIONS PROGRAMMED (ESTAB PER YR) NOTE 3 NOTE CNIER-CAPITAL NON-IRRI LAND RATIO (LE PER HECT) CILR-CAPITAL IRRI LAND RATIO (LL PER HECT) NDTE 5 CNILRN-CAPITAL NON-IRRI LAND RATIO INITIAL (LL PER HECT) NOTE CILRN-CAPITAL IRRI LAND RATIO INITIAL (LL PER HECT) NOTE 7 CYMNIL-CAPL YIELD MULTIPLER NON-IRRI LAND (DIM) NOTE NOTE CYMIL-CAPL YIELD MULTIPLIER IRRIGATED LAND (DIM) 9 NOTE CAPC-CINEMA ATTENDANCE PER CAPITA (TRIPS/PERSON-YR) CPME-COST PER MANUF ESTABLISHMENT (MIL LL PER ESTAB) NOTE 11 NOTE CPMEN-COST PER MANUF ESTABLISHMENT NORMAL (MIL LL PER ESTAB) CPBE-COST PER BUSIN ESTAB (MIL LL PER ESTAB) NOTE 13 NOTE CPBEN-COST PER BUSIN ESTAB NORMAL (MIL LL PER ESTAB) CSGDP-CONSTRUCTION SERVING G.D.P. (BIL LL PER YR) NOTE 15

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## MODEL NAME = NRDM

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<b>.</b>	NUTE	CP-CONSTRUCTION PRODUCT (BIL LL PER)	
25	NOTE	CO-CONSTRUCTION OUTPUT (BIL LL PER YR)	公司来 经承兑资
	NOTE	CC-CONSTRUCTION CAPITAL (BIL LL)	- 1 3 <b>1</b> 34 m
27	NOTE	CCOR-CONSTRUCTION CAPITAL OUTPUT RATIO (YEARS)	
·	NOTE	ADER-DEMANDARATI ORANA EN TARA EN ENTRE A ANTARA EN EN ENTRE A ANTARA EN	5 1 A 1
<b>2</b> 9	NOTE	DSWD-DRY SEASON WATER DEMAND (M3)	e d'El cana e
	NOTE	DDS-DURATION DRY SEASON (YR)	
31	NOTE	DSWS-DRY SEASON WATER SUPPLY (M3)	1 4 3 3 3
	NOTE	DUD-DWELLING UNIT DEFICIENCY (ROOMS)	
33	NOTE	DIED-DWELLING LAND FRACT OCCUPTED (DIM)	
	NOTE	DED-DOMESTIC FUEL DENAND (TOE/VR)	
35	NOTE	DALDAMACED MANIEACTIDING CESTARI I CHMENT CI	
	NOTE	DENTERANCE NAME ACTING TO THAT TALL V CETADI ICHMENTEL	1 Y - 1
37	NUIE		t it down t
<b>, ,</b>	NUTE	UD-UAMAGED DUSINESS (ESTABLISHMENIS)	
20	NUTE	UBN-UAMAGED BUSINESS INTITALLY (ESTABLISHMENTS)	\$ \$ j = 1 = 2 = 1
37	NUTE	ER-EMIGRATION RATE (PERSUNS/YR)	
	NOTE	EF-EMIGRATION FACTOR (FRACT/YR) TO SERVER A SERVER AS A	1.3373
41	NOTE	EN-EMIGRATION MULTIPLIER (FRACT/YR)	
	NOTE	EAR-EXPLOITABLE ANNUAL RAINFALL (M3)	
43	NOTE	EDN-ELECTRICITY DEMAND NORMAL (KWH/YR)	1 24 25 1
	NOTE	ETEM-ENERGY EFFICIENCY TECHNOLOGY MULTIPLIER (DIM)	
45	NOTE	EUC-ELECTRIC UTILITY CAPITAL (BIL LL)	
	NOTE	EUCN-ELECTRIC UTIL CAPITAL INITIAL (BIL LL)	1 Edwards
47	NOTE	EUCR-ELECTRIC UTIL CAPITAL RATIO (DIMENSIONLESS)	
· .	NOTE	FUO-ELECTRIC UTTL OUTPUT (BTL LL PER YR)	a second and
49	NOTE	FUD-FUECTRIC UTIL PRODUCT VALUE OF VALUE	
	NOTE	CHERTER CALLER COUCH (DIE EE TER TRI	a de la care
51	NOTE	ENCIDENCE OF THE CARTER DECREGATION OF LE FER TRA	the second s
	NOTE	EUGITELEDI UTIL GAFITAL INVESTMENT VOLL LL FER TRU Senita sestatenen staten util tangetaent nutt totaena	
52	NULE	ENUIM-EFFLUENUT WATER UTIL INVESTMENT MULT (DIMEN)	
	NULE	FGPPA-FRACE GUVI PRUD EUPUBLIC ADMIN (DIM) CERTAIN	
	NUTE	FNICLEFRAGI NUN-IRRI CULI LAND REMAINING (DIM)	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
22	NOTE	FP-FODD PRODUCTION (THOUSAND VEG EQUIV TONS/HECT-YR)	
	NOTE	FGTPIN-FRACT GOVE TRANSFER PAYMENTS TO IRRI NORMAL (DIM)	$(1,1) \in U^{(1)} \times U^{(1)}$
57	NOTE	FLPPY-FRACT LAND PROGRAMMED PER YEAR (1/YR)	
	NOTE	FPC-FOOD PER CAPITA (THOUS VEG EQUIV TONS / YR-PERSON)	a ser a ser
50	NOTE	FGTPIM-FRACT GOVT TRANSFER PAYNENTS TO IRRI MULT (DIM)	
. •	NOTE	FAOI-FRACT AG OUTPUT TO INPUTS (DIM)	
61	NOTE	FAP I-FRACT AG PRODUCT INVESTED (DIM)	€ 6 groups
	NOTE	FADIR-FRACT AG OUTPUT TO IRRIGATION (DIM)	in the second second
63	NOTE	EBSW-ERACT BUDGET TO SURE WATER (DIM)	
	NOTE	FEDS-FRACT FALLING IN DRY SEASON (DIM)	
	NOTE	FITH-FRACT LAND TRANS IN HWYS (DIM)	
	NOTE	FUTOD-FRACT UPPER INCOME D.U. DEMOLISHED (DIN)	
1	NOTE	EIN_EILEL TMONDTS (11/VD)	
	NOTE	ETTIDG_EDACT TTI DEVENIJES TO DIDGET (DIN)	4. 
3	NUTE	FILLNUFFRAGE HE NEVERWED TO DUDGET (DIM)	
<b>.</b>	NUTE	FIANTFUEL IAN VUINT	
E .	NULE	FAPHT-FRAUL WURKERS PHISILIANS (UIM)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
<b>D</b>	NUTE	FPWA-FRACT PUP UF WURKING AGE (DIM)	
_	NOTE	FWIF-FRACT WORKERS EMPLOYED IN FARMING (DIM)	
7	NOTE	FALI-FRAGT AG LAND IRRIGATED (DIM)	
	NOTE	FPCC-FOOD PER CAPITA (KILOCALORIES / PERSON-DAY)	
9	NOTE	FIPGNP-FUEL IMPORTS AS PERCENT OF GNP	
	NOTE	FMOG-FRACT MANUF OUTPUT TO GOVT (DIMENSIONLESS)	
11	NOTE	FBDE-FRACT BUSIN OUTPUT TO ELECT (DIMENSIONLESS)	
	NOTE	FBOEN-FRACT BUSIN OUTPUT TO ELECT NORMAL (DIMENSIONIESS)	
13	NOTE	EBOW-FRACT BUSIN DUTPUT TO WATER (DIMENSIONLESS)	
· .	NOTE	FROWN-FRACT RUSTN OUTPUT TO WATER (DIMENSION FSS)	
15		FROM SUMPL POSTA DOLLOF TO MMICH INTUCHTOTOME COST	
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	NOTE	FBOC-FRACT BUSIN OUTPUT TO COMMUNICATIONS (DIMENSIONLESS)
25	NOTE	FBOCN-FRACT BUSIN OUTPUT TO COMMUN NORMAL (DIMENSIONLESS)
	NOTE	FBOT-FRACT BUSIN OUTPUT TO TRANSPORTATION (DIMENSIONLESS)
2.7	NOTE	FBOTN-FRACT BUSIN OUTPUT TO TRANS NORMAL (DIMENSIONLESS)
	NOTE	FROTE-FRACT BUSIN OUTPUT TO INFRASTRUCTURE (DIMENSIONLESS)
29	NOTE	FROI-FRACT BUSIN OUTPUT TO INPUTS (DIMENSION FSS)
÷	NOTE	ERPT-ERACT BUSIN PRODUCT INVESTED (DIMENSIONLESS)
31	NOTE	EBOG-ERACT BUSIN OUTPUT TO GOVE (DIMENSIONLESS)
	NOTE	EFUCH-FRACT FLECT UTTL CAPL HYDROFLECTRIC (DIMEN)
33	NOTE	FEIDE-FRACT FLECT HTTL OHTPHT TO FHEL (DIMEN)
	NOTE	FEURI-FRACT ELECT UTIL PRODUCT INVESTED (DIMEN)
35	NOTE	FWHOT-FRACT WATER HITH OUTPHT TO INPUTS (DIMEN)
	NOTE	FWUPT-FRACT WATER UTIL PRODUCT INVESTED (DINEN)
37	NOTE	EMOM-ERACT MANUE OUTPUT TO MATERIALS (DIMENSIONLESS)
	NOTE	EMOT-ERACT MANUE OUTPUT TO INPUTS (DIMENSIONLESS)
30	NOTE	ENOTE-FRACT MANUE OUTPUT TO INFRASTRUCTURE (DIMENSIONLESS)
	NOTE	FMOTN-FRACT MANUE OUTPUT TO TRANS NORMAL IDIMENSION ESSI
41	NOTE	EMOT-FRACT MANUE OUTPUT TO TRANSPORTATION (DIMENSIONLESS)
	NOTE	ETCOL-ERACT TELE-COMMUN OUTPUT TO INPUTS (DIMEN)
43	NOTE	FTCPI-FRACT TELECOMMUN PRODUCT INVESTED (DIMEN)
	NOTE	FIT-FRACT IN INTE TRANSPORT (DIMEN)
45	NOTE	FITOL-FRACT INTE TRANSPORT OUTPUT TO INPUTS
	NOTE	FITPI-FRACT INTE TRANSPORT PRODUCT INVESTED
47	NOTE	FLT-FRACT IN LAND TRANSPORT (DINEN)
	NOTE	ELTOI-FRACT LAND TRANSPORT OUTPUT TO INPUTS (DIMEN)
49	NOTE	FITET-FRACT LAND TRANSPORT FACTL INVESTED (DIMEN)
	NOTE	EMPGTP-ERACT, MANUE, PRODUCT GOVT, TRANSFER PAYMENT (DIM.)
51	NOTE	EBPGTP-ERACT, BUSIN, PRODUCT GOVT, TRANSFER PAYMENT (DIM.)
	NOTE	EMOCN-ERACT MANUE OUTPUT TO COMMUN NORMAL (DIMENSIONLESS)
53	NOTE	EMOCHERACT NANUE OUTPUT TO COMMUNICATIONS (DIMENSIONLESS)
	NOTE	EMOUN-ERACT MANUE DUITPUT TO WATER NORMAL (DIMENSIONIESS)
55	NOTE	ENDW- FRACT MANUE OUTPUT TO WATER (DIMENSIONLESS)
1.11	NOTE	EMOEN-ERACT MANUE DUTPUT TO ELECT NORMAL (DIMENSION ESS)
57	NOTE	EMOR-ERACT NANUE OUTPUT TO ELECT (DIMENSIONLESS)
	NOTE	FEUPI-FRACT FLECT UTIL PROD INVESTED (DIM)
5°	NOTE	FOUL-FRACT CONSTRUCTION OUTPUT TO INPUTS (DIM)
	NOTE	FCPI-FRACT CONSTRUCTION PROD INVESTED (DIM)
61	NOTE	FPES-FRACT PUBLIC EDUC SUBSIDIZED
÷ .	NOTE	EGPPE-ERACT GOVT PRODUCT TO PUBLIC EDUCATION (DIM)
63	NOTE	FPEPI-FRACT PUBLIC EDUC PRODUCT INVESTED (DIM)
	NOTE	FIUPE-FRACT INVESTMENT URBAN PUBLIC EDUC (DIM)
	NOTE	FPHS-FRACT PUBLIC HEALTH SUBSIDIZED
	NOTE	FPHPI-FRACT PUBLIC HEALTH PRODUCT INVESTED (DIM)
1	NOTE	FGPPH-FRACT GOVT PRODUCT TO PUBLIC HEALTH (DIN)
	NOTE	FIUPH.FRACT INVESTMENT URBAN PUBLIC
3	NOTE	FRTI-FRACT RENT TO INPUTS
	NOTE	FOPLIN-FRACT GOVT PROD INVESTED IN LOW INCOME HOUSING (DIM)
5	NOTE	GSCGDP-GOVT. SERVICE CONTRIB TO G.D.P. (BIL LL PER YR)
	NOTE	GBI-GOVT BUDGET TO IRRIGATION (BIL LL PER YR)
7	NOTE	GDPWF-G.D.P. PER WORKER IN FARMING (LL/YR-PERSON)
	NOTE	GDPPWI-G.D.P. PER WORKER IN IRRIGATION (LL PER YR PER PERSON
9	NGTE	GDP-GROSS DOMESTIC PRODUCT (BIL LL PER YR)
	NOTE	GNP-GROSS NATIONAL PRODUCT (LL/YR)
11	NOTE	GTP-GOVT TRANSFER PAYMENTS (LL/YR)
	NOTE	GB-GOVT BUDGET (LL/YR-VEH)
13	NOTE	GDPPWM-G.D.P. PER WORKER IN MANUF (LL/YR-PERSON)
	NOTE	GDPPWB-G.D.P. PER WORKER IN BUSIN. (LL/YR-PERSON)
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GDPWEU-G.D.P. PER WORKER IN ELECT UTIL (LL/YR-PERSON) NOTE 25 GDPWWU-G.D.P. PER WORKER IN WATER UTIL (LL/YR-PERSON) NOTE NOTE GDPWTC+G.D.P. PER WORKER IN TELE-COM(LL/YR-PERSON) 27 NOTE GDPWIT-G.D.P. PER WORKER IN INTL TRANS (LL/YR-PERSON) GDPWLT-G.D.P. PER WORKER IN LAND TRANS (LL/YR-PERSON) NOTE 29 GDPPWC-G.D.P. PER WORKER IN CONSTR (LL/YR-PERSON) NOTE NOTE GP-GOVERNMENT PRODUCT (BIL LL PER YR) 31 NOTE GDP WPU-G.D.P. PER WORKER PUBLIC EDUC (LL/YR-PERSON) NOTE GDPWPH-G.D.P. PER WORKER IN PUBLIC HEALTH (LL/YR-PERSON) 33 HRPM-HEALTH RURAL POPULATION MULT (1/YR) NOTE NOTE HED-HYDROELECTRIC OUTPUT (KWH/YR) 35 HIK-HWY LANE KILDMETERS (LANE-KM) NOTE NOTE HLFD-HWY LAND FRACTION OCCUPIED (DIM) 37 NOTE HCC-HWY CONSTRUCTION COST (LL/KM-LANE) HCCM-HWY CONSTR COST MULT (DIM) NOTE 39 NOTE HWYC-HWY CONSTRUCTION (LANE-KM/YR) HUR-HIGHWAY USER REVENUES (LL/YR) NOTE 41 NOTE HWYDEN-HIGHWAY DENSITY (LANE-KMS/SQ KM) NOTE IF-IRRIGATION FACILITIES (BIL LL) 43 IFN-IRRIGATION FACILITIES INITIAL (BIL LL) NOTE NOTE ICL-IRRIGATED CULTIVATABLE LAND (HECTARES) 45 ICLN-IRRIGATED CULTIVATABLE LAND INITIAL (HECTARES) NOTE NOTE IFLN-IRRI FACILITIES PER LAND INITIAL (LL PER HECT) 47 ILYN-IRRIGATED LAND YIELD NORMAL (VEG EQUIV TONS/HECT-YR) NOTE ILDCM-IRRI LAND DEVELOPMENT COST MULT (DIM) NOTE 49 ILDC-IRRI LAND DEVELOPMENT COSTS (LL PER HECT) NOTE NOTE ICCN-IRRI CONSTRUCTION COSTS INITIAL (LL PER HECT) 51 ILDR-IRRI LAND DEVELOPMENT RATE (HECT PER YR) NO TE IFD-IRRI FACILITIES DEPRECIATION (BIL LL PER YR) NOTE 53 IFI-IRRI FACILITIES INVESTMENT (BIL LL PER YR) NOTE IRP-IRRIGATION PRODUCT (BIL LL PER YR) NOTE IMC-IMPOUNDMENT MAINTENANCE COST (LL/YR) 55 NOTE NOTE ICC-IMPDMT CONSTRUCTION COSTS (LL/M3) (ICCN=WUCN+.4/SWICYN) 57 NDTE ITF-INTERNATIONAL TRANSPORT FACILITIES (BIL LL) NOTE ITFN-INTL TRANSPORT FACIL INITIAL (BIL LL) 59 ITO-INTL TRANSPORT OUTPUT (BIL LL) NOTE ITP-INTL TRANSPORT PRODUCT (BIL LL PER YR) NOTE 61 ITED-INTL TRANSPORT FACIL DEPRECIATION (BIL LL PER YR) NOTE NOTE ITFI-INTERNATIONAL TRANS FACIL INVESTMENT (BIL LL PER YR) 63 NOTE IFCGDP-INFRASTRUCTURE CONTRIB TO G.D.P. (BIL LL PER YR) JIPA-JOBS IN PUBLIC ADMINISTRATION (PERSONS) NOTE JPGPCU-JOBS PER GOVT PROD CAPITAL UNIT (PERSONS/LL E5) NOTE NOTE JIGS-JOBS IN GOVT SERVICES (PERSONS) 1 NO TE JPH-JOBS PER HECTARE NOTE JIF-JOBS IN FARMING 3 JPICU-JOBS PER IRRIGATION CAPITAL UNIT (PERSONS/LL E5) NOTE NOTE JII-JOBS IN IRRIGATION (PERSONS) 5 NOTE JIAC-JOBS IN AG CAPITAL (PERSONS) NOTE JPMCU-JOBS PER MANUF. CAPITAL UNIT (PERSONS/LL E4) 7 NOTE JIM-JOBS IN MANUFACTURING (PERSONS) JPBCU-JOBS PER BUSINESS CAPITAL UNIT (PERSONS/LL E4) NOTE 9 JIB-JOBS IN BUSINESS (PERSONS) NOTE NOTE JPEUCU-JOBS PER ELECT UTIL CAPITAL UNIT (PERSONS/LL E5) 11 NOTE JIEU-JOBS IN ELECTRIC UTILITIES (PERSONS) NOTE JPWUCU-JOBS PER WATER UTIL CAPITAL UNIT (PERSONS/LL E5) 13 JIWU-JOBS IN WATER UTILITIES (PERSONS) NOTE JPTCCU-JOBS PER TELE-CON CAPITAL UNIT (PERSONS/LL E5) NOTE . 15

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23 NOTE JITC-JOBS IN TELE-COMMUNICATIONS (PERSONS) 25 NOTE JPITCU-JOBS PER INTL TRANS CAPITAL UNIT (PERSONS/LL E5) NOTE JITE-JOBS IN INTL TRANS FACILITIES (PERSONS) 27 JPLTCU-JOBS PER LAND TRANSPORT CAPITAL UNIT (PERSONS/LL E5) NOTE NOTE JLTF-JOBS IN LAND TRANS FACILITIES (PERSONS) 29 JIC-JOBS IN CONSTRUCTION (PERSONS) NOTE NOTE JPCCU-JOBS PER CONSTRUCTION CAPITAL UNIT (PERSONS/LL E5) 31 JPPECU-JOBS PER PUBLIC EDUC CAPITAL UNIT (PERSONS/LL E5) NOTE NOTE JIPE-JOBS IN PUBLIC EDUCATION (PERSONS) 33 NOTE JPPHCU-JOBS PER PUBLIC HEALTH CAPITAL UNIT (PERSON/LL E5) NOTE JIPH-JOBS IN PUBLIC HEALTH (PERSONS) 35 NOTE KHPMPY-KWH PER CU METER PER YR (KWH/M3-YR) NOTE LCCR-LAND CONVERSION COMPLETION RATE (HA/YR) 37 NOTE LCR-LAND CONVERSION RATE (HA/YR) NOTE LCR-LAND CONVERSION RATE (HECT PER YR) 39 NOTE LIF-LIFETIME IRRI FACILITIES (YEARS) NOTE LAC-LIFETIME AG CAPITAL (YEARS) 41 NOTE LPK-LAND PER KILOMETER (HA/KM-LAND) NOTE LZH-LAND ZONED HWYS (HA) 43 NOTE LID-LOW INCOME DWELLINGS (ROOMS) NOTE LPDU-LAND PER DWELLING UNIT (SQ METERS/ROOM) 45 NOTE LZD-LAND ZONED FOR DWELLINGS (M2) LICC-LOW INCOME (DWELLING) CONSTR COST (LL/ROOM) NOTE 47 NDTE LICR-LOW INCOME CONSTR RATE (ROOMS/YR) LIDR-LOW INCOME DWELLING DETERIORATION RATE (ROOMS/YR) NOTE 49 NOTE LLID-LIFETIME LOW INCOME DWELLINGS (YR) NOTE LUID-LIFETIME UPPER INCOME DWELLINGS (YR) 51 NOTE LMC-LIFETIME MANUF CAPITAL (YEARS) LPME-LAND PER MANUF ESTABLISHMENT (HECT PER ESTAB) NOTE 53 LZM-LAND ZONED FOR MANUF (HECTARES) NOTE NOTE LBC-LIFETIME BUSINESS CAPITAL (YEARS) 55 NOTE LPBE-LAND PER BUSINESS ESTABLISHMENT (HECT PER ESTAB) NOTE LZB-LAND ZONED PER BUSINESS (HECTARES) 57 LEUC-LIFETIME ELECT UTIL CAPITAL (YEARS) NOTE LWUC-LIFETIME WATER UTIL CAPITAL (YEARS) NOTE 59 NOTE LTCC-LIFETIME TELE-COMMUN CAPITAL (YEARS) NOTE LITF-LIFETIME INTL TRANSPORT FACIL (YEARS) 61 LTF-LAND TRANSPORT FACILITIES (BIL LL) NOTE LTFN-LAND TRANSPORT FACIL INITIAL (BIL LL) NOTE 63 NOTE LTO-LAND TRANSPORT OUTPUT (BIL LL PER YR) NOTE LTP-LAND TRANSPORT PRODUCT (BIL LL PER YR) NOTE LTFD-LAND TRANSPORT FACIL DEPRECIATION (BIL LL PER YR) NOTE LLTF-LIFETIME LAND TRANSPORT FACIL (YEARS) 1 LTFI-LAND TRANSPORT FACIL INVESTMENT (BIL LL PER YR) NOTE LPEF-LIFETIME PUBLIC EDUC FACIL (YR) NOTE 3 NOTE LPEF-LIFETINE PUBLIC EDUC FACIL (YEARS) NOTE LPHF-LIFETIME PUBLIC HEALTH FACILITIES (YR) 5 LPHF-LIFETIME PUBLIC HEALTH FACIL (YEARS) NOTE NOTE LIHO-LOW INCOME HOUSING OUTPUT (BIL LL PER YR) 7 LIHP-LOW INCOME HOUSING PRODUCT (BIL LL PER YR) NOTE MUPH-MODERNIZATION OF URBAN POPULATION MULT (1/YR) NOTE Ģ MRPM-MODERNIZATION OF RURAL POPULATION MULT (1/YR) NOTE NOTE MDT-MODERNIZATION DISSEMINATION TIME (YEARS) 11 MSWICY-MAX SURF WATER IMPDMT CAP (M3) NOTE MFD-MANUF FUEL DEMAND (TON OIL EQUIVALENTS PER YR) NOTE 13 NOTE MVGR-MOTOR VEH GROWTH RATE (VEH/YR) NOTE MVGN-MOTOR VEH GROWTH NORMAL (1/YR)

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NV+MOTOR VEHICLES (VEH) 建化化学工具工作 化分子管 法法定财产资格财产资格财产资格 NOTE 25 NOTE MORICN-MANUE DUTPUT PER CAPITA NORMAL (CELZYR-PERSON)? NOTE NVRC-MOTOR VEHICLES PER CAPITA (VEH/PERSON) BE MORE 27 MCOR-MANUF CAPITAL OUTPUT RATIO (YEARS) AND REPAIRS AND NOTE MCORN-MANUE CAPITAL OUTPUT RATIO NORMAL (YEARS) NOTE 29 NOTE MO-MANUE OUTPUT (BIL LL PER YR) NOTE 31 NOTE MP-MANUE PRODUCT (BIL LL PER YR) - 化学品的标准 医颈神经 NOTE MCD-MANUF CAPITAL DEPRECIATION (BIL LL PER YR) 33 NOTE MCI-MANUF CAPITAL INVESTMENT (BIL LL PER YR) NOTE ME-MANUFACTURING ESTABLISHMENTS 35 NOTE MLFO-MANUE LAND FRACT OCCUPIED (DIMENSIONLESS) NOTE MECH-MANUE ESTABLISHMENT COST MULT (DIMENSIONLESS) 37 NOTE MA-MANUE ADDITIONS (ESTAB PER YR) NOTE MR-MANUF RESTORATIONS (ESTAB PER YR) 39 MRP-MANUE RESTORATIONS PROGRAMMED (ESTAB PER YR) NOTE NOTE MTDSM-MANUF TRANS DEMAND SUPPLY MULTIPLIER (DIMENSIONLESS) MTFCR-MANUE TRANS FACIL CAPITAL RATIO (DIMENSIONLESS) 41 NOTE NOTE MCDSM-MANUF COMMUN DEMAND SUPPLY MULTIPLIER (DIMENSIONLESS) 43 NOTE MTCCR-MANUF TELE-COM CAPITAL RATIO (DIMENSIONLESS) NOTE MWDSM-MANUF WATER DEMAND SUPPLY MULTIPLIER (DIMENSIONLESS) 45 HWUCR-MANUF WATER UTIL CAPITAL RATIO (DIMENSIONLESS) NOTE MEDSM-MANUE ELECT DEMAND SUPPLY MULTIPLIER (DIMENSIONLESS) NOTE 47 MEUCR-MANUF ELECT UTIL CAPITAL RATIO (DIMENSIONLESS) NOTE NOTE MCR-MANUFACTURING CAPITAL RATID(DIMENSIONLESS) 49 NOTE MCN-MANUFACTURING CAPITAL INITIAL (BIL LL) MC-MANUFACTURING CAPITAL(BIL LL) NOTE 51 NOTE NICL-NON-IRRIGATED CULTIVATABLE LAND (HECTARES) NOTE NICLN-NON-IRRI CULTIVATABLE LAND INITIAL (HEGTARES) 53 ÷ NOTE NILYN-NON IRRI LAND YIELD NORMAL (VEG EQUIV TONS/HECT-YR) NOTE NAGDP-NON AGRICULTURE G.D.P. (BIL LL PER YR) 55 NOTE NP-NATIONAL POPULATION (PERSONS) NOTE NPCI-NATIONAL PER CAPITA INCOME (LL PER PERSON PER YR.) C 2003 57 NOTE NUPCR-NATURAL URBAN POP CHANGE RATE (PERSONS/YR) NOTE NUPCE-NATURAL URBAN POP CHANGE FACTOR (FRACT/YR) 59 NRPCR-NATURAL RURAL POP CHANGE RATE (PERSONS/YR) NOTE NOTE NRPCE-NATURAL RURAL POP CHANGE FACTOR (FRACT/YR) 61 NCF-NATIONAL COST OF FUEL (LL/TOE) NOTE NOTE NMGE-NET MANUE GODDS EXPORTED (LL/YR) 63 NOTE NBSE-NET BUSINESS SERVICES EXPORTED (LL/YR) NOTE NAPE-NET AGRI PRODUCTS EXPORTED (LL/YR) NOTE NM-NORMAL MANUFACTURING (ESTABLISHMENTS) NOTE NMN-NORMAL MANUFACTURING INITIALLY (ESTABLISHMENTS) 1 NOTE NB-NORMAL BUSINESS (ESTABLISHMENTS) NOTE NBN-NORMAL BUSINESS INITIALLY (ESTABLISHMENTS) 3 NOTE NAJ-NON-AGRICULTURAL JOBS (PERSONS) NOTE PAP-PUBLIC ADMINISTRATION PRODUCT (BIL LL PER YR) 5 POF-PRICE OF FOOD (LL PER TON) NOTE NOTE PPARJ-PRODUCT PER AG-RELATED JOB (LL PER PERSON PER YR) 7 NOTE PPNAJ-PRODUCT PER NON-AG JOB (LL PER PERSON PER YR) POLPM-POLLUTION POPULATION MULT (FRACT/YR) NOTE ç NOTE PED-POLLUTION EFFECT DELAY (YEARS) NOTE PPP-PDP PER PHYSICIAN (DIM) 水晶像的 法财产财产权 多化 11 NOTE PCEC-PER CAPITA ENERGY CONSUMPTION (TOE/YR-PERSON) NOTE POPU-PERCENTAGE OF POPULATION URBAN 13 NOTE PPWA-PERCENTAGE OF POPULATION OF WORKING AGE NDTE POPDEN-POPULATION DENSITY (PERSONS / SQ KM)

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23 NOTE PUNEM-PERCENTAGE UNENPLOYMENT 25 NOTE PHSUB-PERCENTAGE HEALTH SUBSIDIZED NOTE PHPS-PERCENTAGE HEALTH IN PRIVATE SECTOR 27 NOTE PESUB-PERCENTAGE EDUCATION SUBSIDIZED PEPS-PERCENTAGE EDUCATION IN PRIVATE SECTOR NOTE 29 NOTE PALI-PERCENTAGE AGRI LAND IRRIGATED NOTE PCMM-POLLUTION CONTROL MANUF MULT (DIMENSIONLESS) 31 NOTE POLR-POLLUTION RATIO (DIMENSIONLESS) NOTE PECOR-PUBLIC EDUC CAPITAL OUTPUT RATIO (YEARS) 33 PEFN-PUBLIC EDUCATION FACIL INITIAL (BIL LL) NOTE NOTE PED-PUBLIC EDUC OUTPUT (BIL LL PER YR) 35 PEP-PUBLIC EDUCATION PRODUCT (BIL LL PER YR) NOTE NOTE PEF-PUBLIC EDUCATION FACILITIES (BIL LL) 37 NOTE PHEOR-PUBLIC HEALTH CAPITAL OUTPUT RATIO (YEARS) NOTE PHEN-PUBLIC HEALTH FACIL INITIAL (BIL LL) 39 PHO-PUBLIC HEALTH OUTPUT (BIL LL PER YR) NOTE NOTE PHP-PUBLIC HEALTH PRODUCT (BIL LL PER YR) 41 PHE-PUBLIC HEALTH FACIL (LL) NOTE ODL-QUALITY OF LIFE NOTE 43 RILIH-RECONSTRUCTION INVESTMENT IN LOW INCOME HOUSING (BIL LL PER NOTE RWIL-RELATIVE WIEGHT OF IRRI LAND (DIM) NOTE 45 NOTE RCNILR-RELATIVE CAPL NON-IRRI LAND RATIO (DIM) NOTE RCILR-RELATIVE CAPITAL IRRI LAND RATIO (DIM) 47 NOTE RACLR-RELATIVE AG CAPL LAND RATIO (DIM NOTE RPN-RURAL POPULATION INITIAL (PERSONS) 49 RP-RURAL POPULATION (PERSONS) NOTE NOTE RNPCI-RELATIVE NATIONAL PER CAPITA INCOME (DIM) 51 RNPCIR-RELATIVE NATL PER CAPITA INCOME RATIO (DIM) NOTE NOTE **RBN-RESTORED BUSINESS (ESTABLISHMENTS)** 53 **RB-RESTORED BUSINESS (ESTABLISHMENTS)** NOTE NOTE RNPCIN-RELATIVE NATL PER CAPITA INCOME NORMAL (DIM) 55 NOTE **RRI-RELATIVE RURAL INCOME (DIM)** NOTE RRIR-RELATIVE RURAL INCOME RATIO (DIM) 57 NOTE RRIN-RELATIVE RURAL INCOME NORMAL (DIM) RUMM-RURAL TO URBAN MIGRATION MULT (FRACT/YR) NOTE 59 NOTE RUMMR-RURAL TO URBAN MIGRATION MULT REALIZED (FRACT/YR) NOTE RLZT-REALIZATION TIME (YEARS) 61 NOTE RUMR-RURAL TO URBANMIGRATION RATE(PERSONS/YR) NOTE RUME-RURAL TO URBAN MIGRATION FACTOR (FRACT/YR) 63 NOTE REFRMT-RELATIVE EDUC FACIL RURAL MULT (DIN) NOTE RDPP-ROOMS DESIRED PER PERSON MULT (DIM) NOTE RENT PER DWELLING (LL/YR-ROOM) NUTE RPEPCR-RURAL PUBLIC ED PER CAPITA RATIO 1 NOTE RPHF-RURAL PUBLIC HEALTH FACIL (LL) NOTE RIM-RECONSTRUCTION INVESTMENT IN MANUF (BIL LL PER YR) 3 NOTE RM-RESTORED MANUE (ESTABLISHMENTS) RMN-RESTORED MANUE INITIALLY (ESTABLISHMENTS) NOTE 5 NOTE RIB-RECONSTRUCTION INVESTMENT IN BUSINESS RITC-RECONSTRUCTION INVESTMENT IN TELECOMMUN (BIL LL PER YR) NOTE 7 NOTE RIIT-RECONSTRUCTION INVESTMENT IN INTL TRANSPORT (BIL LL PER YR) NOTE RILT-RECONSTRUCTION INVESTMENT IN LAND TRANSPORT (BIL LL PER YR) 9 NOTE RPEF-RURAL PUBLIC EDUC FACIL (LL) NUTE RPEFI-RURAL PUBLIC EDUC FACIL INVESTMENT (LL/YR) 11 NOTE RPHFI-RURAL PUBLIC HEALTH FACIL INVESTED (LL/YR) NOTE RPHFD-RURAL PUBLIC HEALTH FACIL DEPRECIATION 13 SWICY-SURFACE WATER IMPOUNDMENT CAPACTY (CU METERS) NOTE SWIC-SURF WATER IMPOMT CONSTRUCTION (M3/YR) NOTE 15

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