

Planning **MUST**

NEW DELHI

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PAGE 26

9

ECOLOGICAL AND TOURISM

DEVELOPMENT

OF

SIKKIM

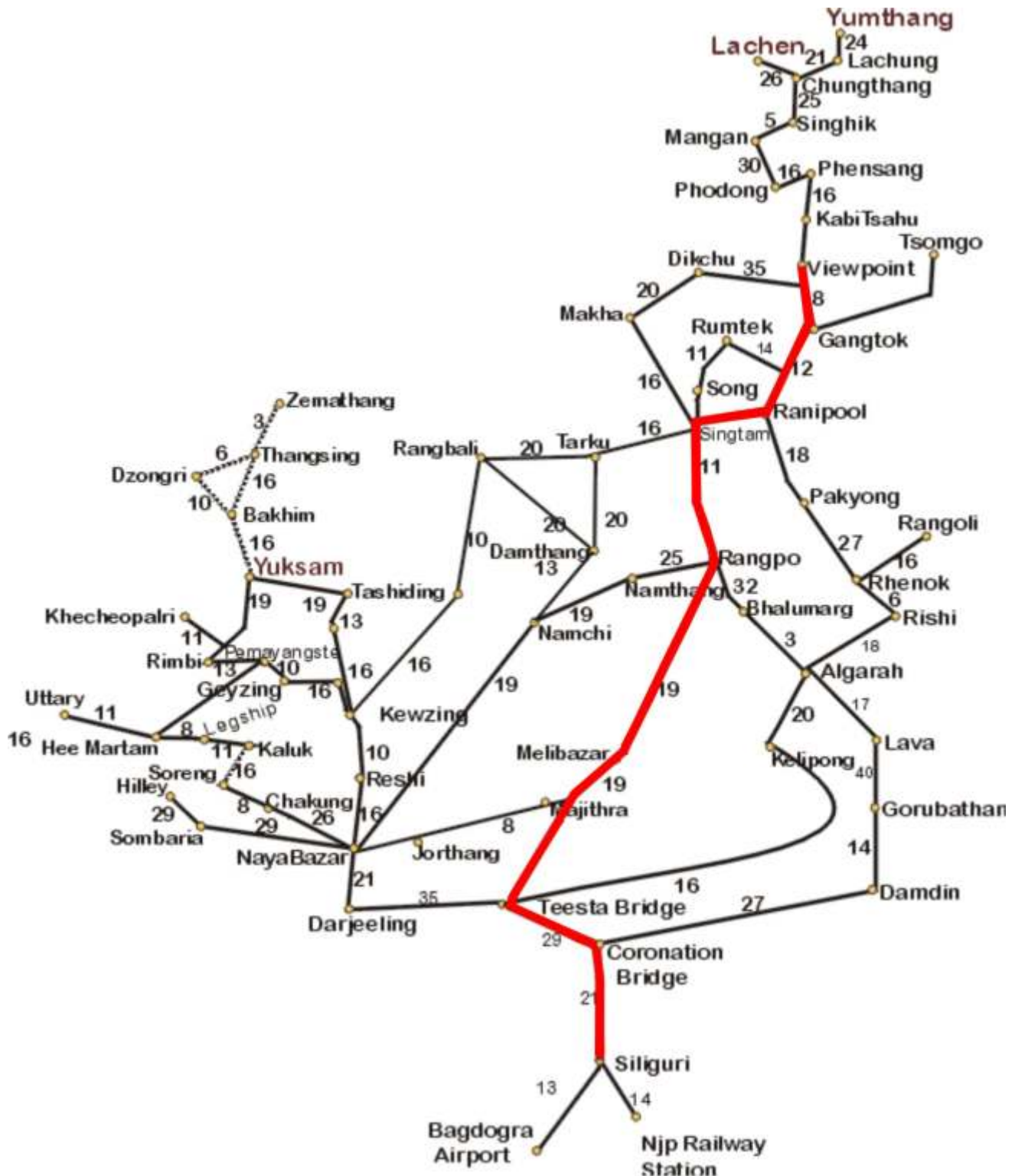
2011-2021



R.G. GUPTA
POLICY/CITY PLANNER



ROUTE MAP OF SIKKIM ALL DISTANCE IN KMS.
MAP NOT TO SCALE



HUMAN AND PHYSICAL RESOURCES

HUMAN RESOURCES

POPULATION OF SIKKIM



Population of Sikkim is only .005% of the country (1210.2M in 2011). Growth of population of Sikkim during 1991 – 2001 was 31.7% now reduced to 12.4% between 2001 – 2011 AD. On this basis it can be assumed that by 2021 AD population of Sikkim may be only 0.65M. of child population in the age group 0-6 years in 2001 was 14.5% which is reduced to 10.1% in 2011. **Sex Ratio** in 2001 was 87.5% Females in comparison to Males and now in 2011 is 88.9%.

Literacy rate is good one increased from 68.8% (2001) to 82.2% (2011).

Density of population was 76 persons per sq.km. in 2001 increased to 86 persons per sq.km. in 2011 AD or less than one person per hect.

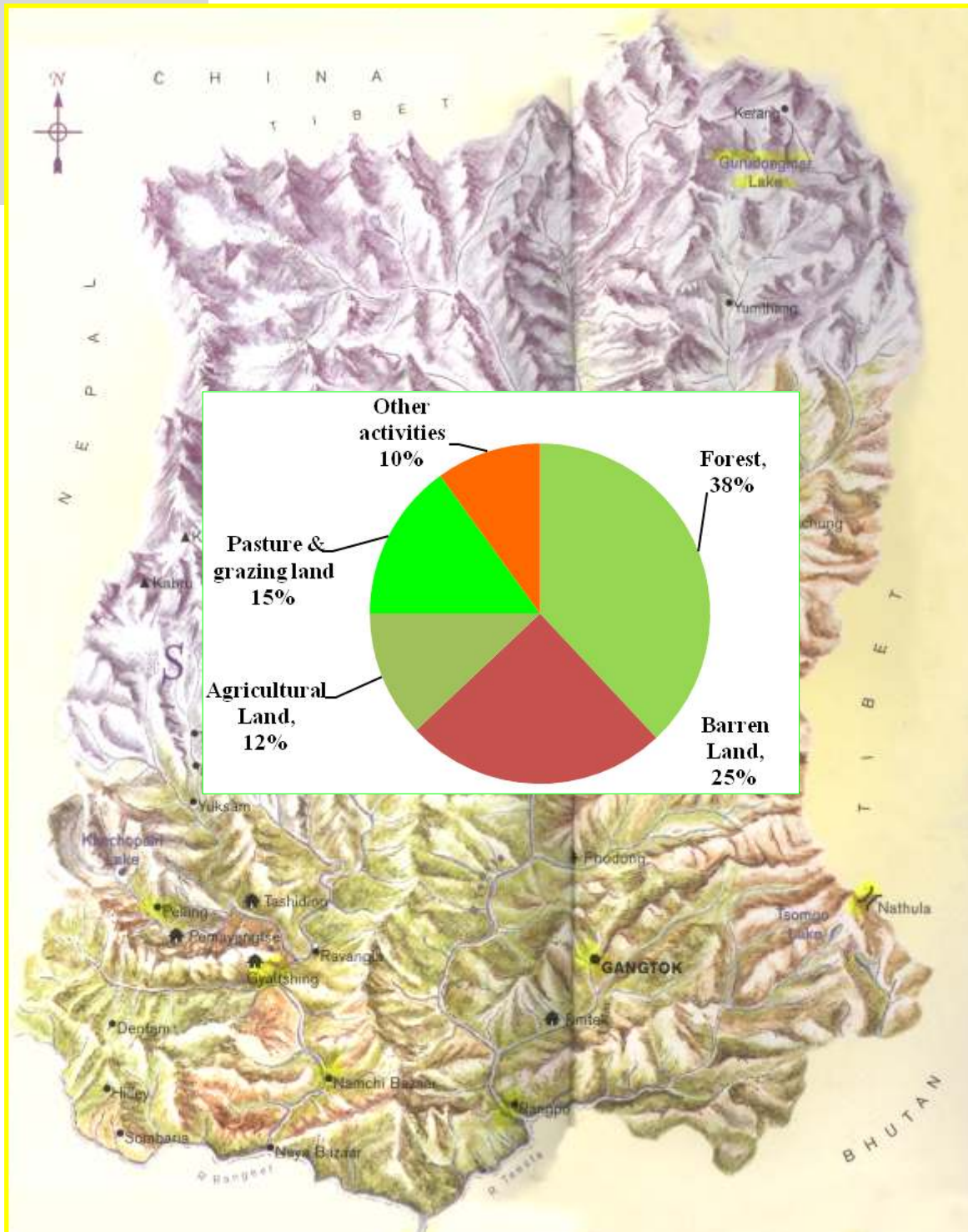
These parameters have to be taken care while making main policy decisions.

PHYSICAL RESOURCES

TOTAL AREA IS 7096 SQ.KM surrounded by Nepal in the west, Bhutan in the east and Tibet in the north and West Bengal in the south

Distance between northern and southern point is 110 Km. and east to west is 65 Km. Sikkim has a 220 Km. long border with Tibet, 100 Km. with Nepal, 30 Km. with Bhutan and 80 Km. with West Bengal.

MACRO LAND USE – MOSTLY GREEN AREAS



90% AREA IS GREEN/ CAN BE MADE AS GREEN. THEREFORE, SHOULD BE USED FOR ECOLOGICAL DEVELOPMENT AND FOR TOURISM PURPOSES.

CAVES (NORTH SIKKIM)



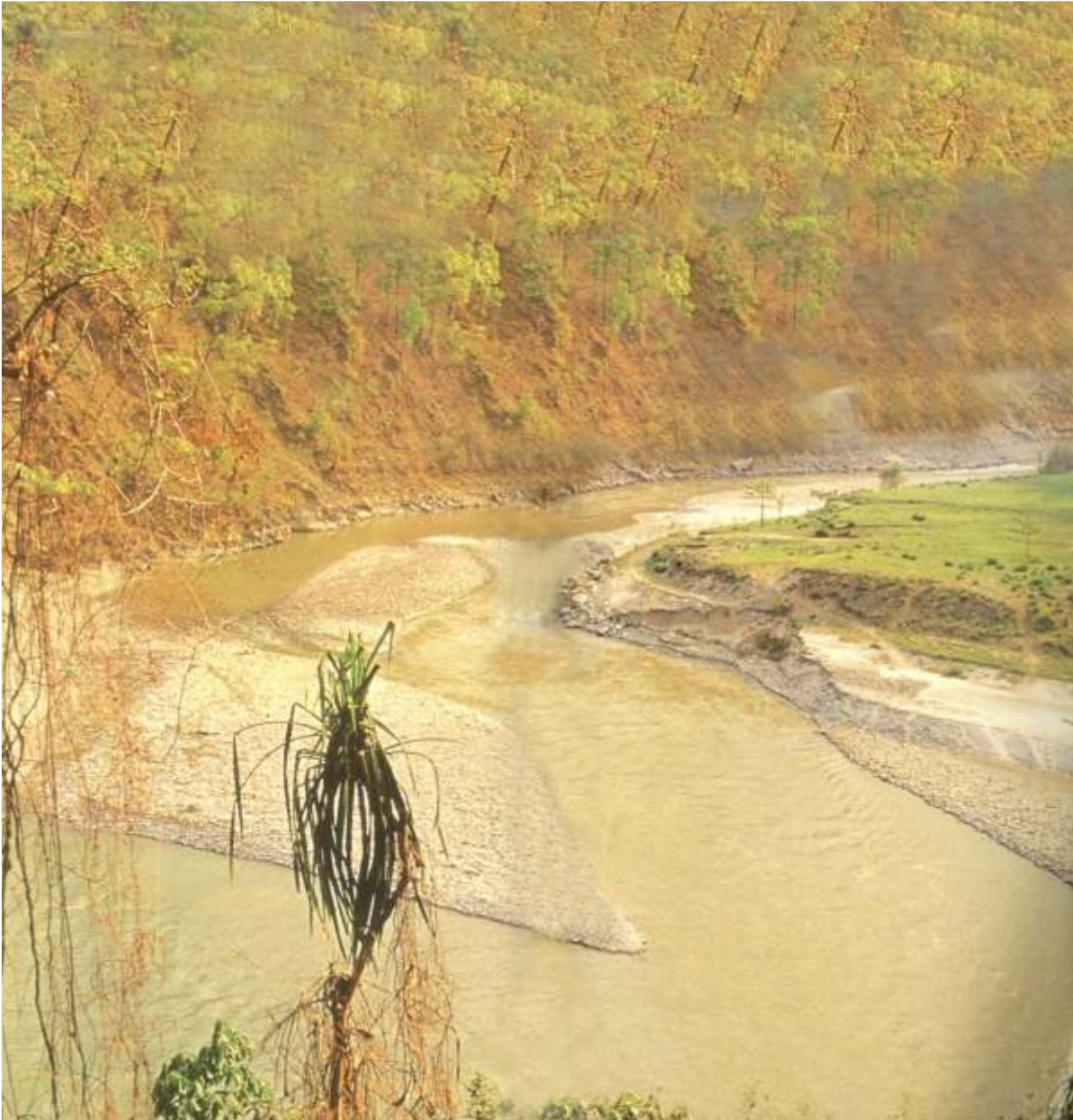
GURUDONGMAR LAKE IN NORTH SIKKIM IS HELD IN DEEP REVERENCE. LOCALS LEAVE LITTLE PYRAMIDS OF STONES HERE AND MARKS OF THEIR DEVOTION.

NORTH SIKKIM



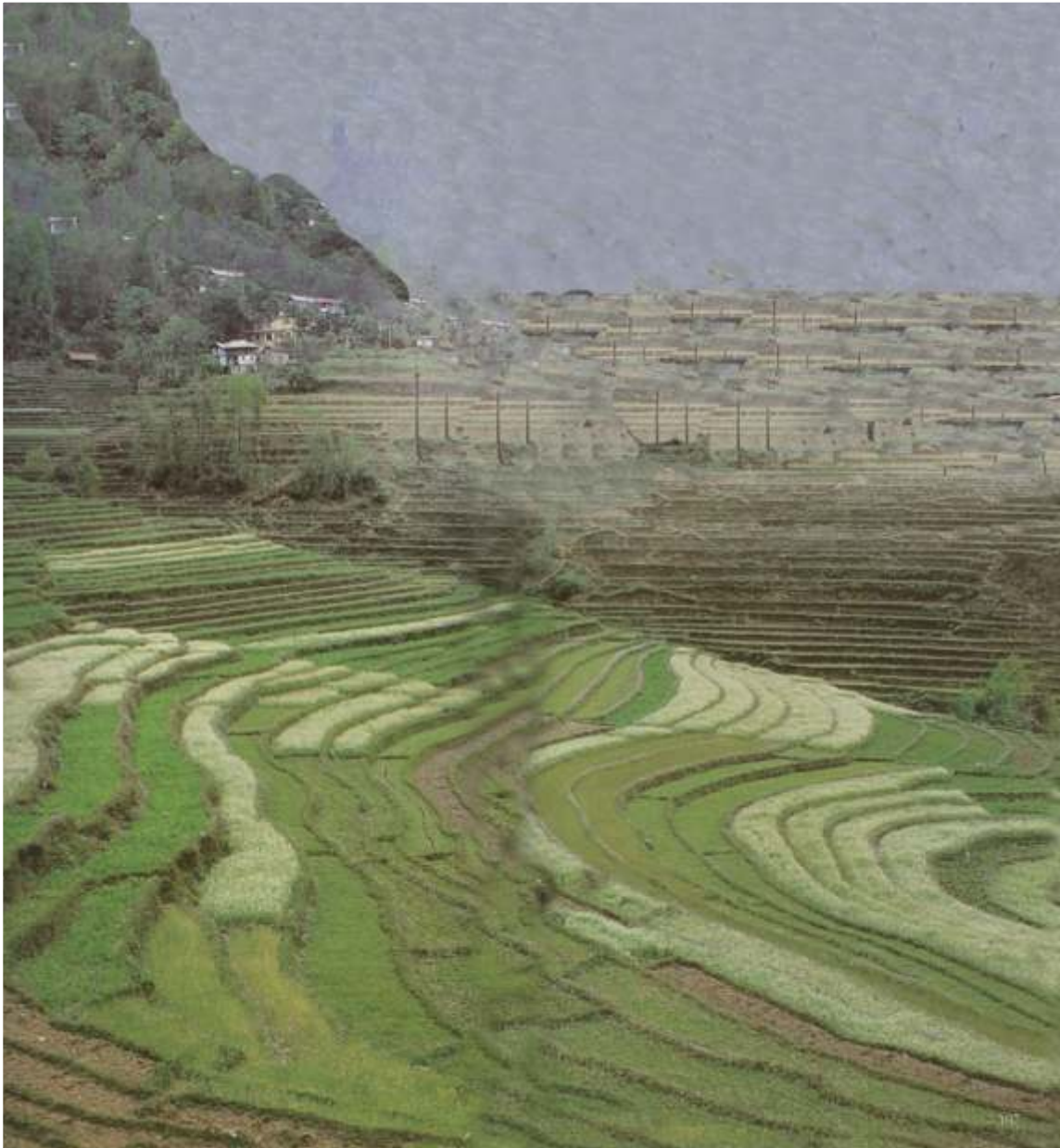
NOWHERE DOES THE AMAZING BIODIVERSITY OF SIKKIM. FROM THE LUSH TROPICALITY OF THE AREA AROUND MANGAN, THE DISTRICT HEADQUARTER, THROUGH THE RHODODENDRON FORESTS BEYOND LACHUNG TO UNEXPLORED AND UNCOMPROMISING WILDERNESS OF THE HEIGHTS THAT MERGE INTO THE TIBETAN PLATEAU - THIS DISTRICT OF SIKKIM IS AN EVERY-CHANGING PANORAMA. IT IS SPARSELY POPULATED AND UNSPOILT, AND THE GOVERNMENT AND PEOPLE ARE KEEN TO KEEP IT THAT WAY. ALL TOURISTS, DOMESTIC OR FOREIGN, NEED A SPECIAL PERMIT TO TRAVEL HERE AND THE ENTRY OF PRIVATE CARS IS BLOCKED AT CHUNGTHANG SUB-DIVISION. NORTH SIKKIM CAN BE TOURED ONLY THROUGH TOUR OPERATORS RECOGNIZED BY THE STATE GOVERNMENT.

EAST SIKKIM



EAST SIKKIM IS THE ENTRY POINT FOR ALL TRAVELLERS HEADING FOR GANGTOK AND NORTH SIKKIM FROM BAGDOGRA OR SILIGURI. ONE ENTERS THE MOUNTAIN STATE AT RANGPO WHERE PERMITS ARE SCRUTINIZED. FROM RANGPO, THE 40-KM. DRIVE UP TO THE CAPITAL GANGTOK KEEPS PACE WITH THE TEESTA AND IS A PLEASURE BEYOND COMPARE. STOP BY WHEREVER YOU CAN AND WALK DOWN TO THE RIVER FOR A PADDLE IN ITS ICY WATERS. JUST BEFORE MELLI, ALSO WATCH OUT FOR THE SPOT WHERE THE GREENER WATERS OF THE RANGEET SWELL INTO THE TEESTA.

SOUTH SIKKIM



NAMCHI, LITERALLY SKY HIGH, IS THE CAPITAL OF THE SOUTH SIKKIM DISTRICT, WHICH IS COMPOSED LARGELY OF PADDY TERRACES SO GREEN THAT THEY ARE AN INSTANT EYE-TONER. AT 1,660 METRES, NAMCHI LOOKS ACROSS A VAST VALLEY AT THE MAOUNTAINS.

HIGH ABOVE NAMCHI IS A FLAT STRETCH OF LAND AT 2,580 METRES SURROUNDED BY DEEP FORESTS. THIS IS TENDONG HILL, A TRADITIONAL RETREAT FOR LAMAS WHO USE THE SOLITUDE OF ITS HEIGHT AS AN IDEAL PLACE TO MEDITATE. REACHED AFTER A TWO-HOUR TREK FROM DAMTHANG, 13 KMS. AWAY FROM NAMCHI AND THE NEAREST ROADHEAD, IT STILL RETAINS AN AIR OF REFLECTION ABOUT IT.

KERANG PLATEAU



THE KERANG PLATEAU IN NORTH SIKKIM IS ONE OF THE MOST RUGGED AREA

WEST SIKKIM

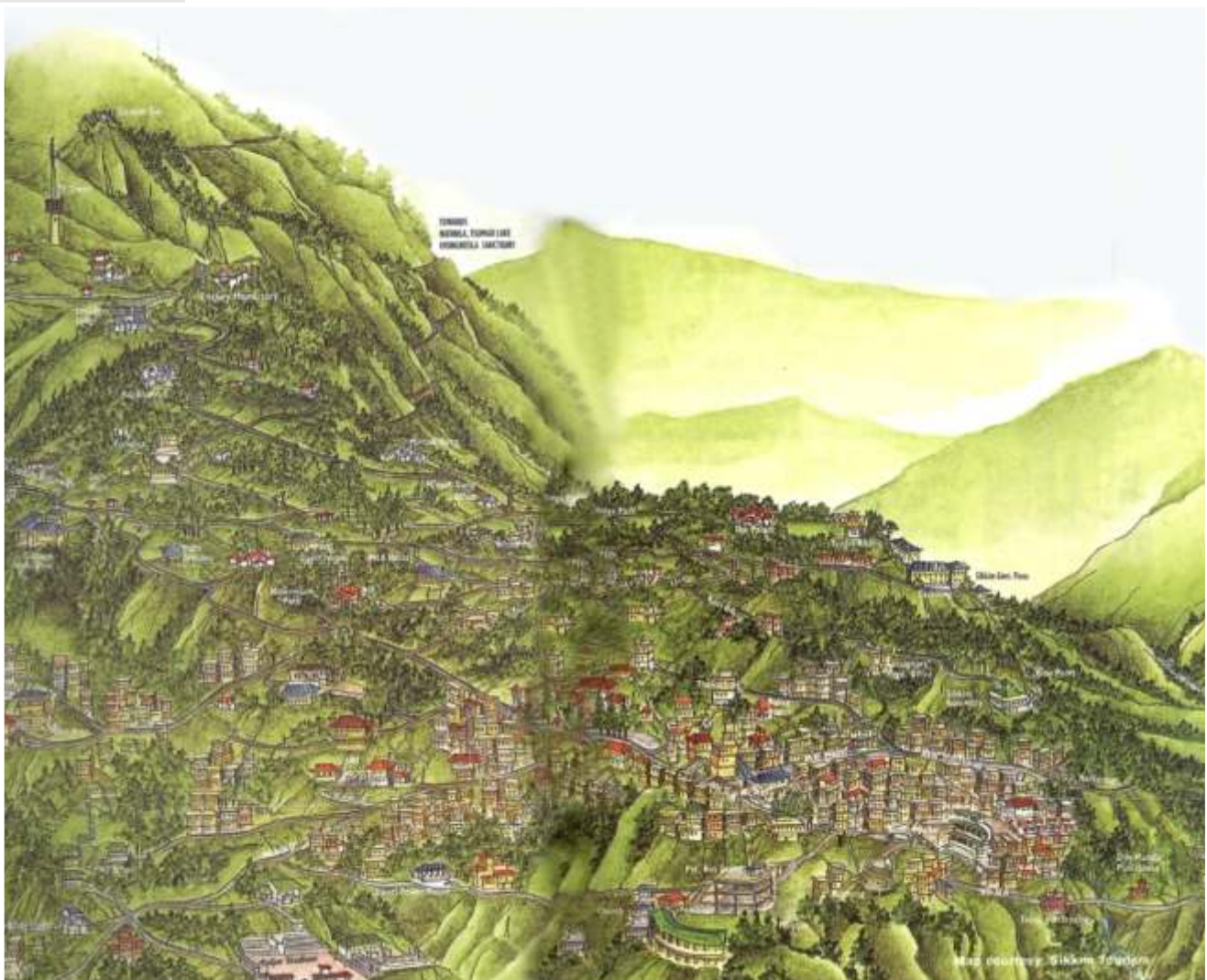


FOR MOUNTAINEERS AND TREKKERS AS WELL AS FOR NATURE-SEEKING TOURISTS, WEST SIKKIM IS PERHAPS THE MOST FREQUENTED OF SIKKIM'S REGIONS. THE FAMOUS DZONGRI TRAIL AND THE MAGNIFICENT PEMAYANGTSE GOMPA ARE BOTH IN THE DISTRICT OF WEST SIKKIM. THE REGION IS BEAUTIFUL, WITH FAST-PACED STREAMS THREADING THEIR TURBULENT WAY THROUGH DEEP GREEN FORESTS. THE DISTRICT HEADQUARTERS OF WEST SIKKIM IS AT GYALTSHING, A LITTLE TOWN ARRANGED AROUND A SQUARE, WHICH SPRINGS TO COLOURFUL LIFE EVERY MONDAY WITH A WEEKLY BAAT.

URBAN SETTLEMENT

GANGTOK

Gangtok city has now reached its saturation of development and is on the verge of decline due to large scale migration. In order to check further deterioration of the environment of Gangtok, therefore it is proposed that extensions of urban areas should not be permitted in an planned way; and other towns should be developed by giving them infrastructure inputs and creating avenues of employment and development of appropriate community facilities.



BRIEF DESCRIPTION OF URBAN SETTLEMENTS

- 1 **Gangtok (E)** - Capital of the State as well as District headquarter. It is also important agricultural, industrial & tourist centre. All the urban functions have to be located here.
- 2 **Geyzing (W)** – It is the district headquarter and located in Western part of the State. It is a important agricultural centre and also potential centre for tourism. Due importance has to be given being as a district headquarter with a huge hinterland.
- 3 **Mangan (N)** – It is district headquarter as well as only town in North district – the most backward district, which require immediate action. In other words this district has very good potentiality in tourism.
- 4 **Singtam (E)** – Mandi Town, with a good potentiality in tourism. There is a possibility of development of area along river Teesta about ½ km. from the Northern Bridge.
- 5 **Pakyong (E)** – Mandi town, Subdivisional H.Q., Newly declared Urban settlement. Population 4100, located in eastern part of East district away from N.H. 31A. Potentiality in tourism, and social infrastructure. An Air Strip is also being developed.
- 6 **Nayabazar (W)** – Important town in West district, but with weak infrastructure. It is a Mandi town and has a potentiality of development of ware housing, storage and processing centre.
- 7 **Tadong (E/W)** – Newly declared town, just near to Gangtok.
- 8 **Jorethang (S)** – Industrial growth centre. Important town in southern part of the State and has a modern market. It is just adjoining to Naya Bazar and the two towns would be complementary to each other.
- 9 **Rangpo (E)** – Industrial growth centre and border town. It has a potentiality of a good tourist centre between NH-31A and the river Teesta.
- 10 **Namchi (S)** – It is district headquarter and located in southern part of the State. It has a potentiality of development of a large Growth Urban Centre.
- 11 **Ranipool (E)** – Mandi town, located only 11 km. before while going from Rangpo to Gangtok, it can be developed as a supporting town of Gangtok. It has good connectivity with other settlements and is newly declared urban town.
- 12 **Chungthan (N)** – Sub divisional H.Q. and important settlement in North District, which has only one town-Mangan therefore this should be declared as Urban settlement. It is a potential tourist centre as well as pilgrim centre. It can be a service centre for the remotest villages in the northern region.

- 13 **Melli Bazar (S)** – Industrial Growth, Border town with good accessibility; but not yet declared as Urban Settlement.
- 14 **Maniram Bhangan (S)** – This is situated on a metalled road with availability of suitable infrastructure, industrial settlement, tourism potentiality along the river, near National boundary.
- 15 **Rhenack (E)** – Mandi town as well as border town and newly declared Urban settlement.
- 16 **Rongli (E)** – Mandi town and newly declared one.
- 17 **New Dikchu (N)** – It is 23 km. away from Gangtok, bazaar settlement, not yet declared as town but it is nearness to the Capital will promote fast development.
- 18 **Soreng (W)** – Subdivisional H.Q., Bazar settlement. It can be third important town in the West district.
- 19 **Ravangla (S)** – Subdivisional headquarter bazaar settlement. It can be a important service centre for northern part of South district.
- 20 **Damthang (S)** – Bazaar settlement as well as its strategic location requires developmental activities. It is located in central part of South district, connected with Singtam, Namchi, Ravangla, and Gyalshing. Near Damathang a very big Temi Tea Estate is located. Therefore Damathang requires special attention in development.
- 21 **Reshi (W)** – Bazar settlement, it is located in a strategic point between Jorethang / Nayabazar in south and Gyalshing in the north. It has potentiality in tourism.
- 22 **Legship (W)** – Bazar settlement, only 16 km. away from Gyalshing. It can be developed as satellite town of Gyalshing.
- 23 **Dentam (W)** – Bazar settlement, located in western part of West district. It can be an important service centre for this region.
- 24 **Makha (E)** – Bazar settlement, along the river Teesta. Connected by the metalled road with Singtam. Potentiality in tourism; but not yet declared as Urban settlement.
- 25 Phodong, Labrang Monastery and Tumlong Palace in North District . This places are located with in a km. along the Northern Highway. This place has to be developed as a tourist and pilgrim centre.
- 26 **Sombare (W)** – Bazar settlement in West district, and connected by metalled road. It has also a tourist potentiality.

ANALYSIS OF ECONOMIC ACTIVITIES and PROPOSAL OF TOURISM

- 1 As a hilly state, settlements in Sikkim have good potentiality in horticulture, floriculture, flora & fauna, rivers, lakes, water bodies, trekking, mountaineering, caves, gardens, butterflies, birds, monastery, wild life sanctuary, mountain biking, river rafting etc.
- 2 Participation rate in Industrial activities including in household industrial sector is low and therefore it should be increased specially by adding Information & Communication Technology with planned strategy.
- 3 Good percentage (31%) of workers are engaged in trade and commerce, therefore this activities has to be organized and regulated properly in all the Urban settlements.
- 4 In Gangtok, a good percentage of workers is working in Service Sector, therefore, it is necessary to provide proper physical, social, economic and ecological infrastructure for this group of people, as well as for others.
- 5 There are hindrances in transportation of goods and passengers due to non-availability of wider roads, parking spaces and terminals. Due attention should be paid while planning all urban settlements.
- 6 Practically there is no Railways, Waterways and Airways
- 7 Economy in Public Private and Corporate Sectors has to be improved and increased

STRATEGY OF ECONOMIC DEVELOPMENT

USE OF AVAILABLE RAW MATERIALS

- 1 Fruits & vegetables for Processing industry, preservation plant, Brewing industry.
- 2 Wool for woolen garments and carpet industry etc.
- 3 Different herb and flora for cosmetics, medicine, colour and dyeing etc.
- 4 Wood for wood products
- 5 Milk for dairy and milk products.

INVOLVEMENT OF PUBLIC PRIVATE SECTOR IN THE DEVELOPMENT OF
ECOLOGICAL INFRASTRUCTURE / TOURISM IN SIKKIM

INSTITUTION AND FINANCIAL PLANNING

PURPOSE AND FUNCTIONS OF INSTITUTION

Activities

- | | | | |
|---|-------------|----|----------------|
| 1 | Shelter, | 8 | Communication, |
| 2 | Health, | 9 | Employment, |
| 3 | Recreation, | 10 | Distribution, |
| 4 | Security, | 11 | Planning, |
| 5 | Safety, | 12 | Development |
| 6 | Education, | 13 | Construction. |
| 7 | Justice, | | |

Can be managed with the help of

- 1 Coordination,
- 2 Integration,
- 3 Evaluation,
- 4 Monitoring,
- 5 Jurisdiction,
- 6 Time
- 7 Skilled – Personnel

FINANCIAL PLANNING

1

Expenditure

Towards expenditure side it include cost of acquisition of land, cost of alternate allotment of urban spaces, laying of internal, peripheral and trunk, physical, social, ecological and other types of infrastructure.

2

Source of funding

Expenditure for various activities for different years has to be matched with receipt and resources whose source can be as under:

- (a) Central Govt. Funds; grants or seed capital / revolving fund;
- (b) State Govt. Funds; grants or loans
- (c) Funds from International and National financial institutions like World Bank, ADB, National Housing Banks, HUDCO, LIC, GIC etc.
- (d) Large Funding Institutions including Scheduled Banks;
- (e) Channelisation of private funds with the help of NGOs and Cooperative Societies;
- (f) Direct Involvement of private funds;

RATIONAL DISPOSAL PRICES OF LAND FOR VARIOUS USES

Assuming that cost of developed land is Rs. X per sq.mt. then percentage for various uses can be as under:

S.N.	Income Group/Land Use	% of cost of developed land
1	For EWS	50% of X
2	For L.I.G	75% of X
3	For M.I.G.	X
4	For H.I.G.	2X or more
5	For District parks, playground and open spaces	10% of X
6	For Sports ground	10% of X
7	Sites for education, health facilities	33% of X
8	Sites for other social and cultural Institutions	50% of X
9	Sites for commercial use	3X or more
10	Sites for Hotel	3X or more
11	Shifting of non-conforming Industrial units	75% of X
12	For new industries	2X or more
13	For other uses	As per demand of the time

STRATEGY OF PUBLIC PARTICIPATION

Planning is for five basic elements, i.e. (i) man, (ii) nature, (iii) society, (iv) structure and (v) networks.

There are two facades of the planning process; one, who makes the plans, i.e. the planning authority / planner; and the other, for whom the planning is made, i.e., the general public / urban poor.

The former thinks himself more knowledgeable, and considers the later a liability. But it is a fact that no single authority / person, can handle the problem of sheltering the public with facilities, unless it involve all other factors, e.g., the people to be housed, the agencies (official and non-official) interested in providing shelter to the urban poor.

The people should not be considered a liability but as capable, resourceful and productive members of the society, who can contribute meaningfully to the solution of planning problems, if their skills, genius and resources are put to use.

Collaboration of people's organization at the basti and slum level, of service and professional organizations, of official, statutory and governmental bodies must be made essential in the projects of planning/development/construction. People's participation in such activities can considerably reduce the cost of these projects.

But the lack of communication between planners and the public enables a haphazard growth of the city. It is also the basic reason as to why we are not successful in stopping the unauthorized constructions in urban areas.

AREAS FOR PUBLIC PARTICIPATION

- (i) Acquisition of land and built-up properties
- (ii) Preparation and finalization of:
 - Master plan of towns;
 - Sector or Zonal plan;
 - Alignment plans of various roads, intersections and trunk Services;
 - Road-over-bridges, road-under-bridges and cloverleaves
- (iii) Dealing with sub-standard areas, namely
 - Unauthorized colonies and Slum areas;
- (iv) Shifting and spot zoning of non-conforming uses
- (v) Shifting of wholesale trade;

STRATEGY OF PUBLIC PARTICIPATION

For proper public participation, ample opportunities must be given to all persons, to see, study and file objections/suggestions. For this, wide publicity should be given through radio, television and other mass-media. Plans should be made public before finalization. There should be discussion and debate on the various plans. Discussions in various forums should be well thought of and conducted with representatives from different sectors, irrespective of any political party. This is possible, if beneficiaries are involved with the help of NGO's Co-operative Societies and Forums at neighbourhood and town level.

GOD OF GOVERNANCE



Bhakti



Karma



Brahma



Integrated Yoga



Mahesh



Raj



Vishnu

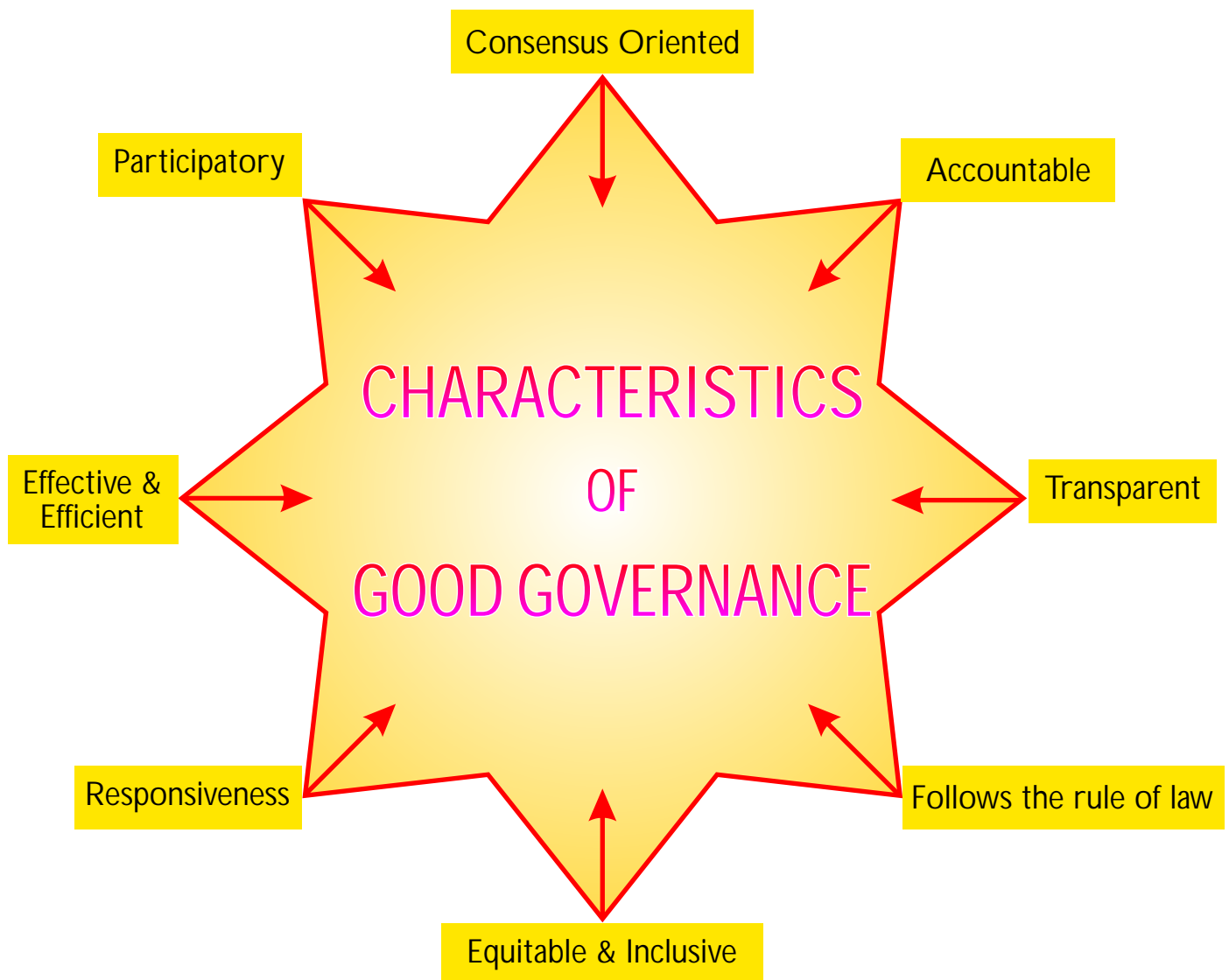


Gyan

GOVERNANCE INCLUDES VARIOUS ACTIONS, PROCESSES & INSTITUTIONS,

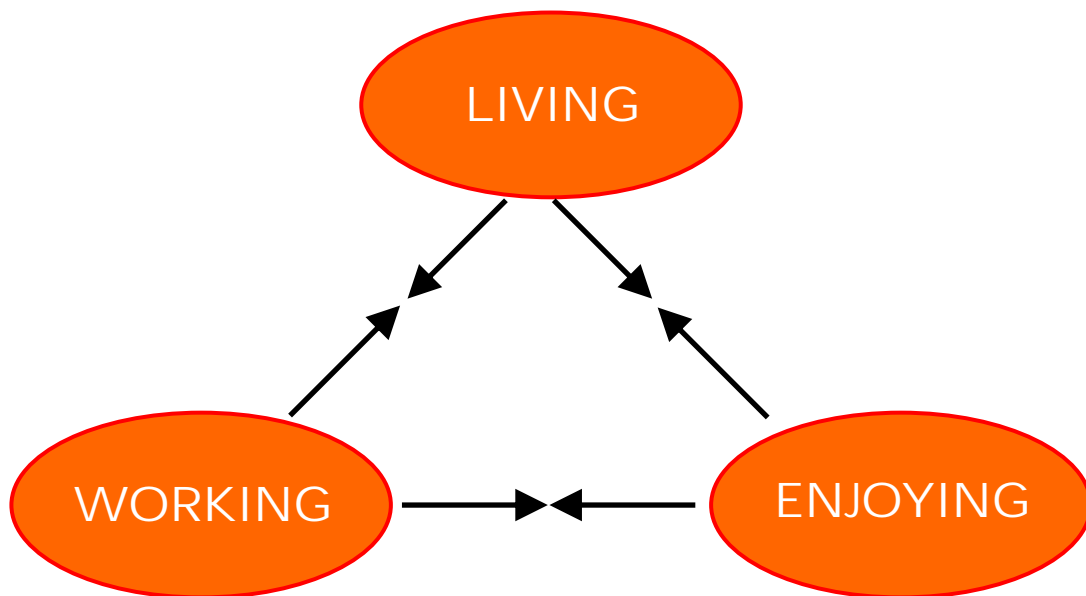
(FORMAL AND INFORMAL)

Not necessarily exclusively by Govt. & its organizations but also by Private Sectors , NGOs & public at large.

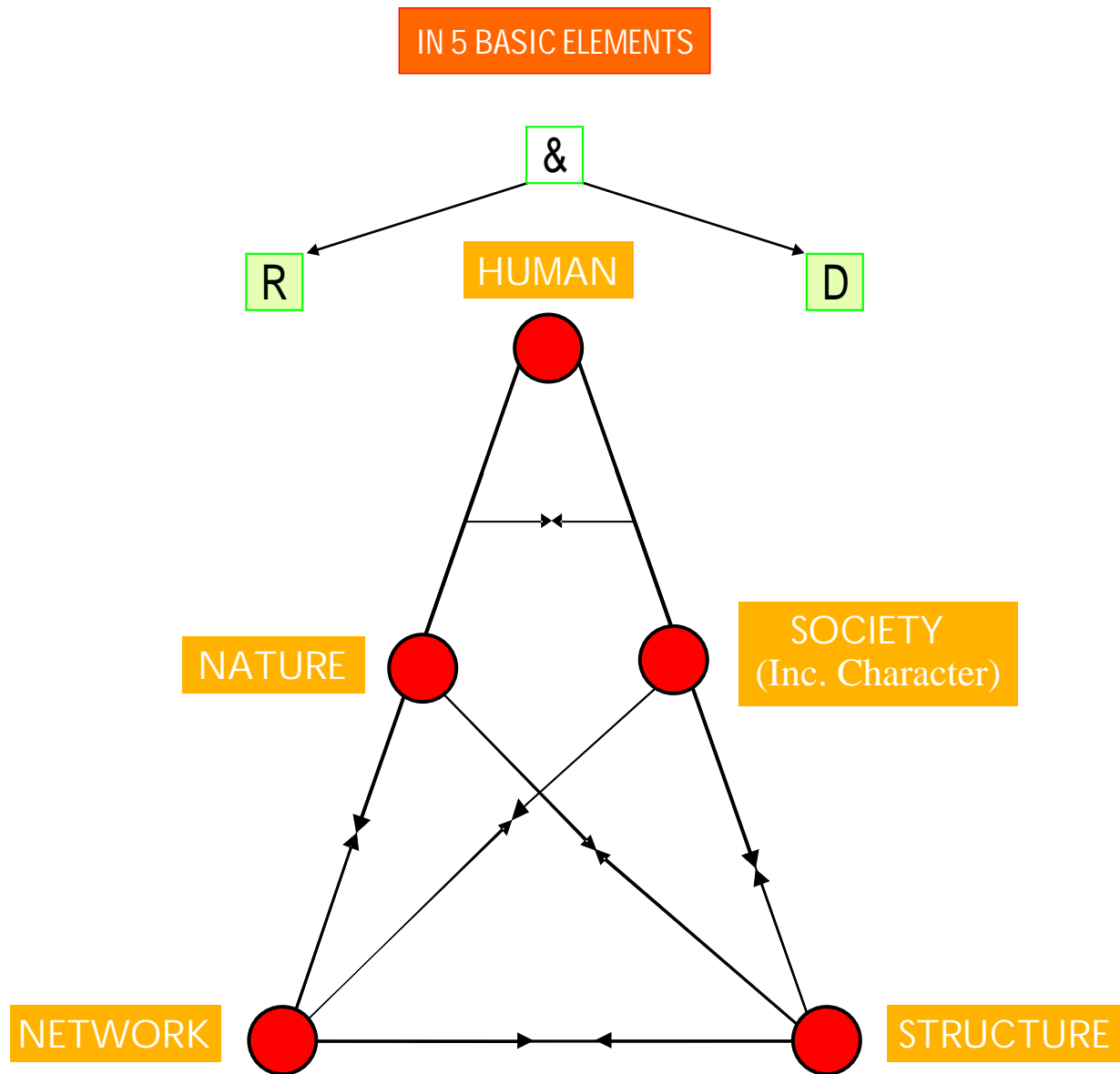


THEORY

GOVERNANCE IS TO GOVERN
ALL TYPES OF INFRASTRUCTURE



FRAMEWORK FOR GOVERNANCE OF INFRASTRUCTURE



The Framework can be tackled with proper Planning (Physical, Financial & Time), Coordination, Integration, evaluation, Monitoring, Control & Governance with Private & Public Participation in different socio Economic sectors.

CHARACTER INFRASTRUCTURE

TO CONTROL

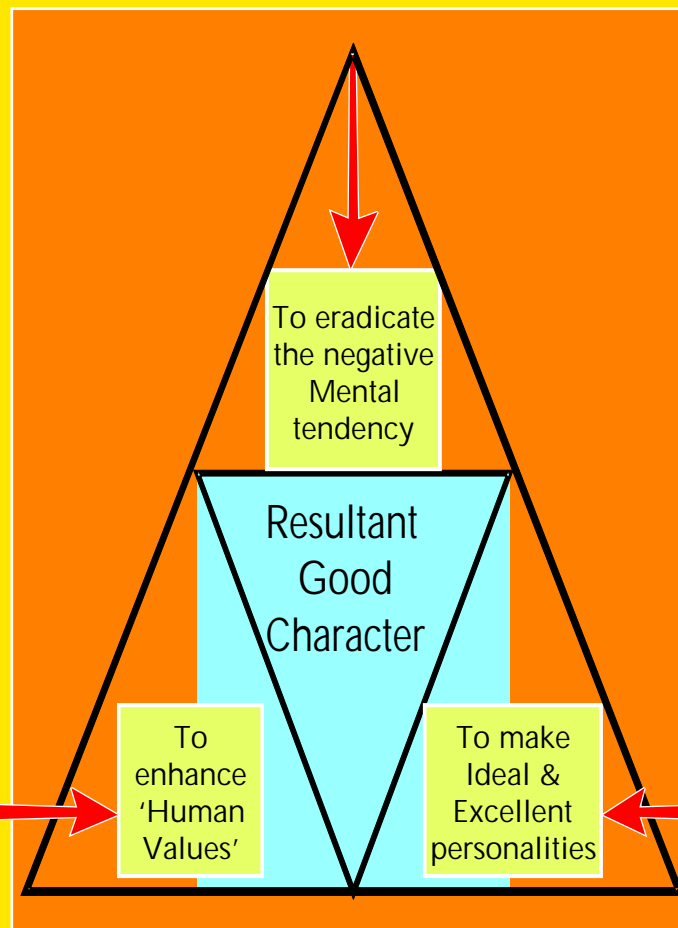
Anger • Greed • Lust • Jealousy • Fear • Deceit • Malice
 Hatred • Hypocrisy • Violence • Selfishness • Ego
 Partiality • Arrogance • Obstinacy etc.

TO HAVE

- Sublime
- Judicious
- Disciplined
- Cultured
- Balances
- Cheerful
- Positive thinking
- Industrious
- Duty Conscious
- Modest
- Discrete
- Responsible
- Self Confident
- Dedicated
- Resolute
- Energetic
- Dynamic
- Courageous
- Harmonious
- Hospitable
- Broad Minded

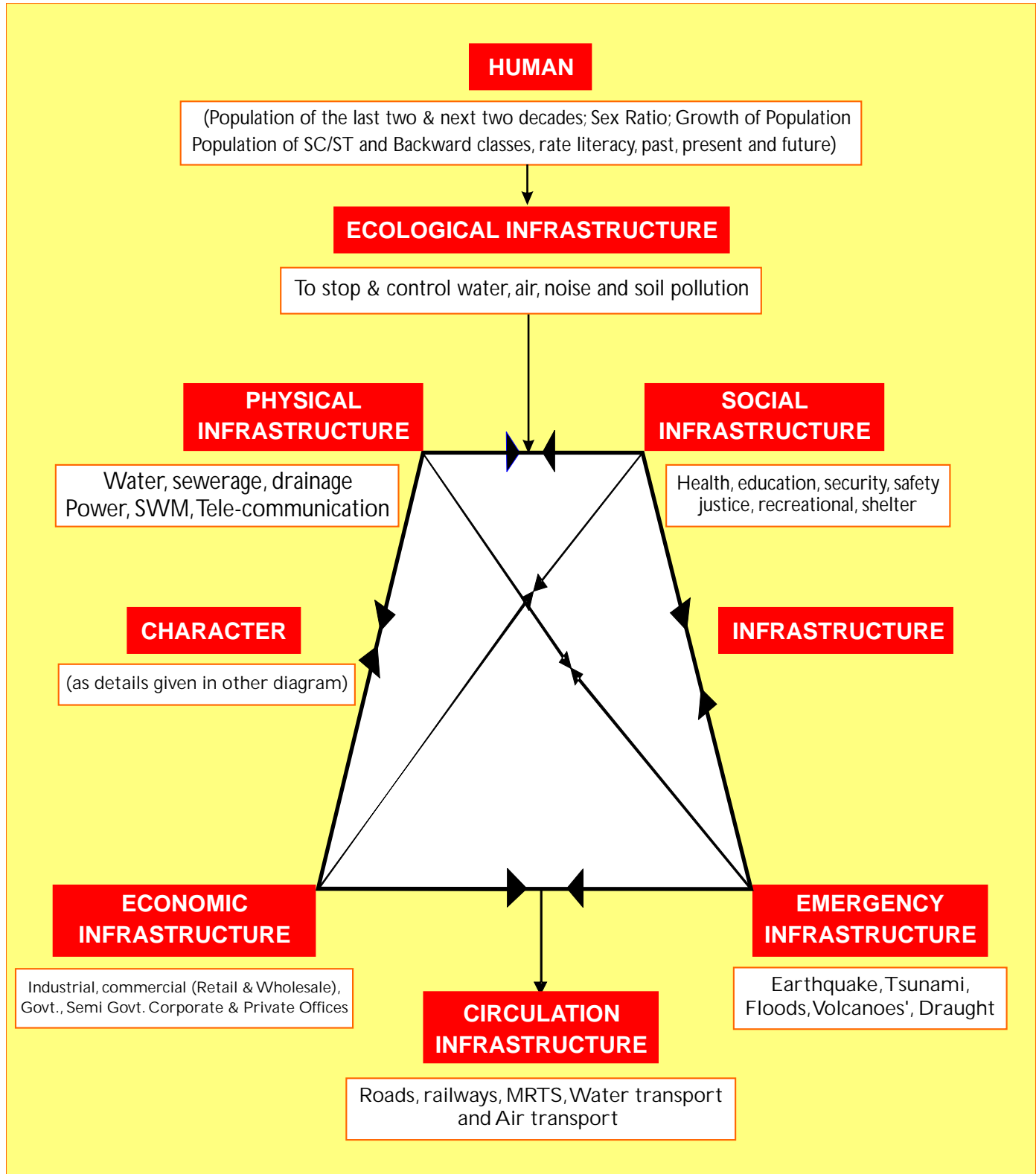
TO CREATE

- Love
- Truth
- Compassion
- Tolerance
- Purity
- Selfless Service
- Self Sacrifice
- Self Control
- Serenity
- Fortitude
- Forgiveness
- Contentment
- Curiosity
- Asceticism
- Generosity etc.



ELEMENTS OF PLANNING

(Physical, Financial & Time)



QUALIFICATION

1. B.Sc. in **1956** from Meerut College Meerut
2. B. Arch. (GMD) in **1961** from ROORKEE, IIT and got **Gold Medal**
3. P.G. Degree in Town & Country Planning in **1963** from SPA, Delhi
4. P.G. Dip. In Regional Development Planning from ISS, Netherlands in **1969**
5. Fellow Member; (i) ITPI, (ii) Institute of Architects, India, (iii) Institute of Engineers, India, (iv) AMDA,
6. Many small Diplomas and Certificates



R.G. GUPTA

POLICY/CITY PLANNER

Director–Virtual Center/E. Education
Universal Public School

EXPERIENCE IN DIFFERENT OFFICES; EX.:

1. Sr.Pvt. Secretary to a 'Joint Committee –Parliament'
2. Delhi Development Authority – 1965-94 (29 years)
3. Advisor in NCR-PB in 1994-96
4. Advisor in Delhi State Industrial Development Corporation
5. Advisor in Delhi Livestock Products Processing Corporation
6. Advisor in Traffic & Tourism Development Corporation
7. Advisor in Slum Department
8. Advisor to AMDA

PRESENT ASSIGNMENTS

1. Director of Universal Institute of Computers & Technology
2. Director of R.G. Macro Planners Pvt. Ltd.
3. **President – “Character Infrastructure Educational Society”**
4. **Vice-President of “Climate Change Research Society”**
5. Co-opted Member of the BLS of **Delhi Vidhan Sabha**
6. Advisor to Municipal Corporation of Delhi and Planning Department, Delhi Govt.
7. Working in Four Private Companies and on few Private projects

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