

Implications of Humanistic World View

**Holistic
World
View**

The universe is an indivisible whole



Interconnectedness



Interdependence



Inter being !



**Concern for each other, for all existence? human beings,
animals, birds, trees; rivers, mountains, forests.....**

(deep ecology)

Cooperation rather than competition

Lessons from Geese!

Implications of Holistic World View

There is more to life than wealth, power, fame

Goal of Human Life

Further manifestation of all our potentials

Experience of the Reality through inner development

- **(External) Development should also be holistic, economic, moral and spiritual, equitable**
- **Gandhian Model of Development & Technology**
- **Impact on Technology, political system, education and healthcare**

HOLISTIC-TECHNOLOGY

What will be the characteristics of technology in consonance with the holistic world view?

TECHNOLOGY — HUMAN WELFARE — BASIC NEEDS
|
MATERIAL |
HIGHER

(W) HOLISTIC TECHNOLOGY : should enable satisfaction of ALL MATERIAL NEEDS OF EVERYBODY PERPETUALLY
&
NOT THWART SATISFACTION OF HIGHER NEEDS.

TECHNOLOGY & MATERIAL NEEDS

1. MINIMIZE dependence on exhaustible resources & MAXIMIZE use of renewable resources.
2. MINIMIZE ENVIRONMENTAL POLLUTION.
3. SAFETY at all stages production, utilisation & disposal of its 'wastes'.

TECHNOLOGY & SOCIAL NEEDS

4. Promoting social responsibility, belongingness, cooperation

DECENTRALIZATION.

5. Use of Local resources – material, manpower,

TECHNOLOGY & MORAL / SELF-ACTUALISING NEEDS

6. Job satisfaction (creative, meaningful jobs).

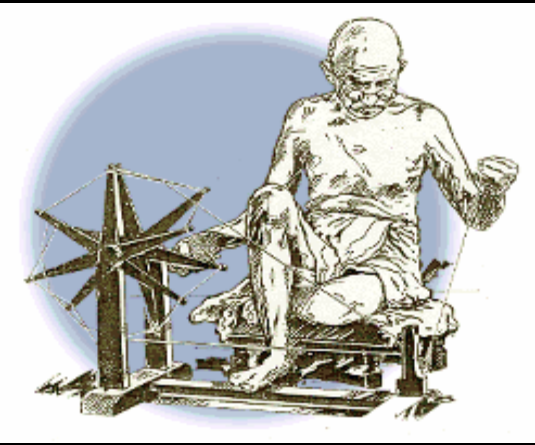
7. Equity – social justice.

8. Shouldn't pamper baser instincts.

9. Should promote conservation of resources.

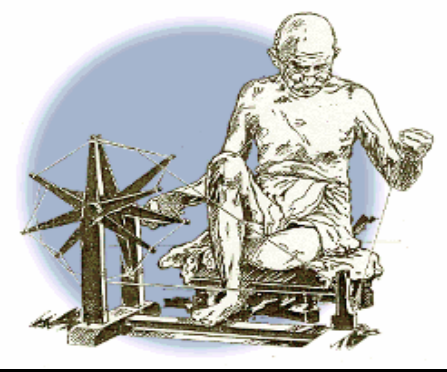
HOLISTIC TECHNOLOGY examples

- **Decentralised Energy Systems**
- **Cottage & Village Industries**
- **Alternative Health Care Systems**
- **Alternative Sanitation Practices**
- **Low Cost Housing**
- **Organic / Natural farming**
- **Water resources management**



Gandhian Vision of Development

=> its need , the concept and
the challenges



SYNOPSIS

- Why Gandhian Model ?..... India's Development Experience
- Gandhiji's critique of Industrialism
- Gandhian Model of development
- Challenges of Implementing the vision
- Discussion
- =====
- Imperatives of Gandhian Model

The Model of Development

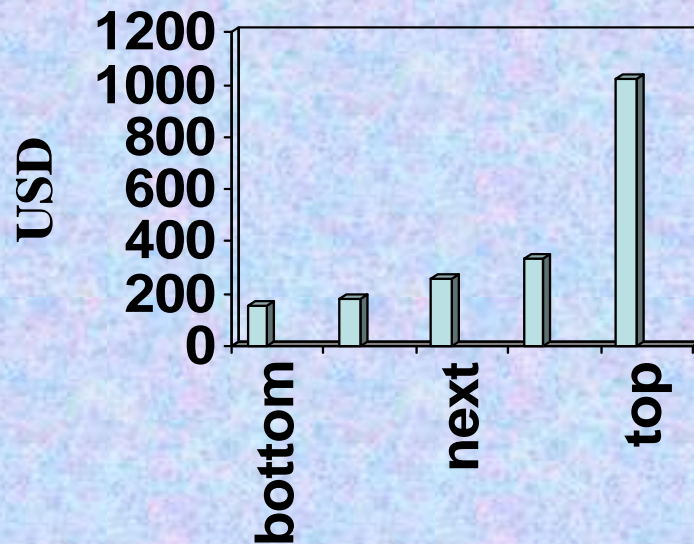
- Increase wealth of nation through Planned growth in agriculture and industry--emphasis on centralized technologies
- The wealth would trickle down to masses thus alleviating poverty
- Help to village industries only a stop gap arrangement for 'quick employment generation'

India's Development Experience

ITEM	YEAR1950	YEAR 1998
Food grains	50.8 mt	203.5 mt
Sugar	1.134 mt	15.520 mt
Steel	1.041 mt	373.1 mt
Cotton	4215 m sqm	17948 m sqm
Electricity gen	6.575 b kWhr	448.6 b kWhr
Bicycles	99 k	10373k
GDP crores	1,40,477	10,83,047

India's Development Experience

**Per capita Income
distribution in India-
1999**



- 35% below poverty line
External Debt : 21% of GDP, interest repayment : 64% tax revenue
- Unaccounted money in circulation: 30-50% of GDP
- 9th most corrupt country among the 54 studied
- Increasing crime and violence
- **skewed economic growth and moral shrinkage**

Task force on Employmentreport submitted to Planning Commission (2002)

- Only if GDP growth ~8-9% employment opportunities would increase.....if it continues at average of 6.5% it will not lead to any significant improvement in employment
- Almost near jobless growth in 1990s
- Unemployment ~ about 10 crore youth

What are its implications?

The Danger ahead -Globalisation

- Increasing unemployment-increasing inequity
- ***Stark inequalities can be a recipe for socio-political and economic destabilisation in a globalising economy*** {PMs Council}

Gandhiji's Critique of “Industrialism” based Development

- Crossing river on the basis of average depth !
 - Need for equity
- Based on Exploitation- of Man, Nature
 - Need for non violence , concept of **ahimsa**
- Unhealthy dependence & vulnerability
 - Need for self sufficiency in basic necessities , concept of **swadeshi**
- Unnecessary mechanization
 - Need for appropriate technology –less capital requirement , more employment , meaningful jobs
- Pampers baser instincts
 - Self control is a virtue , concept of **swaraj**

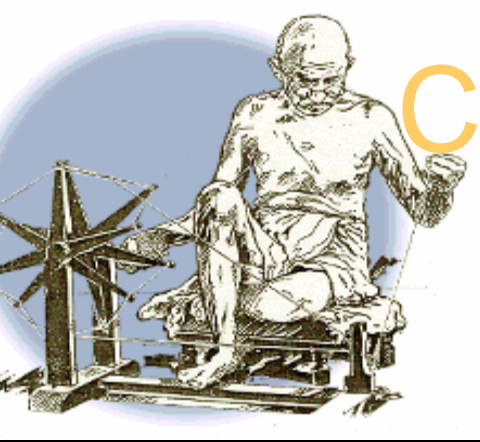
Gandhian Model of Development



- Development should be holistic { economical , intellectual, emotional & spiritual} & Non-exploitative, i.e. sustainable
- Possible only in “Self sufficient Village Republics ” : *Gram-swaraj & Swadeshi*
- *Gandhiji: I do visualise electricity, ship building, iron works, machine making and the like existing side by side with village handicrafts. But the order of dependence will be reversed.....*
- The mantra : *rural industrialization -wealth generation in a distributed manner & not re-distribution of wealth generated centrally*
 - the need for S ,T & M inputs

Alternative Criteria for Technology Choice

- Maximise employment
- minimise resource depletion
- Reduce vulnerability- promote self sufficiency
- reduce inequity
- promote job satisfaction
- shouldn't pamper baser instincts – not thwart satisfaction of higher needs



Challenges in Implementing Gandhian Model

- Technical feasibility : Is it possible to meet our basic requirements in this decentralised mode of production ?
- Can we have production by masses in a manner that can compete with mass production?
- Social feasibility – will these technologies and the life style be socially acceptable ?

*Let us Discuss the possibility of
responding to these challenges*

Can we afford to continue
with the present model of
development ?

***Imperatives of the
Gandhian Vision of
Development***

Conceptual Acceptance of the Gandhian Vision of Development

What is development ?

- Human Development Index { HDI }
 - life expectancy at birth
 - educational attainment
 - GDP per capita
- Its limitations
 - *countries with high values of HDI have the highest levels of crime, suicide rates and divorces !*
- Need for a deeper holistic vision => economic + social + moral + spiritual development

What is development ?

- UNDP Definition : *Enlarging people's choices and opportunities to :*
 - *lead a long, healthy & meaningful life*
 - *to acquire knowledge*
 - *to have access to resources for decent standard of living*
 - *while preserving it for future generations*
 - *ensuring human dignity & security, and*
 - *achieving equality for all men and women*

RIO-DECLARATION on Environment & Development

- 5: Eradicating poverty...**decrease disparities**
an indispensable requirement for sustainable development
- 8 :Eliminate unsustainable patterns of
production and consumption
- 22: recognize and support indigenous
knowledge and traditional practices

UNDP –echo of Gandhian vision

- UNDP report {HDR-2003} :
- top policy priority is increasing equity not just economic growth
- growth should be broad based and labour intensive rather than capital intensive
- income disparities have reached grotesque levels
 - richest 5% / lowest 5% = 114
 - richest 10% / lowest 10 % = 16.6 (USA) ; 13.4 (UK); 14.2 (Germany); 20.3 (Russia) ; 65.8 (Brazil); 9.5 (India)
- Promote labour intensive small & medium enterprises

Alternative Vision

- Sustainability demands emphasis on renewable resources
- Produce sophisticated equipment using capital intensive “advanced” technology
- Produce bulk of items by using decentralised production systems using “intermediate” technology
 - success stories in India of VI sector
- Need for sustainable consumption
 - shift in values , life style , technologies

Alternative Vision

- Some examples of technologies in tune with this vision :
 - Organic farming using bio-manure, bio pesticides , animal powered implements
 - Decentralised agro-food-dairy industries along with concomitant engg. Industries
 - Decentralised bio-fuel production in rural areas { Bio-diesel, producer gas , bio gas etc.}
 - herbal foods, cosmetics and medicines
 - Organic cotton + natural dyes
 - Decentralised rural industrial estates

Technical Feasibility of Gandhian Vision of Village Republics

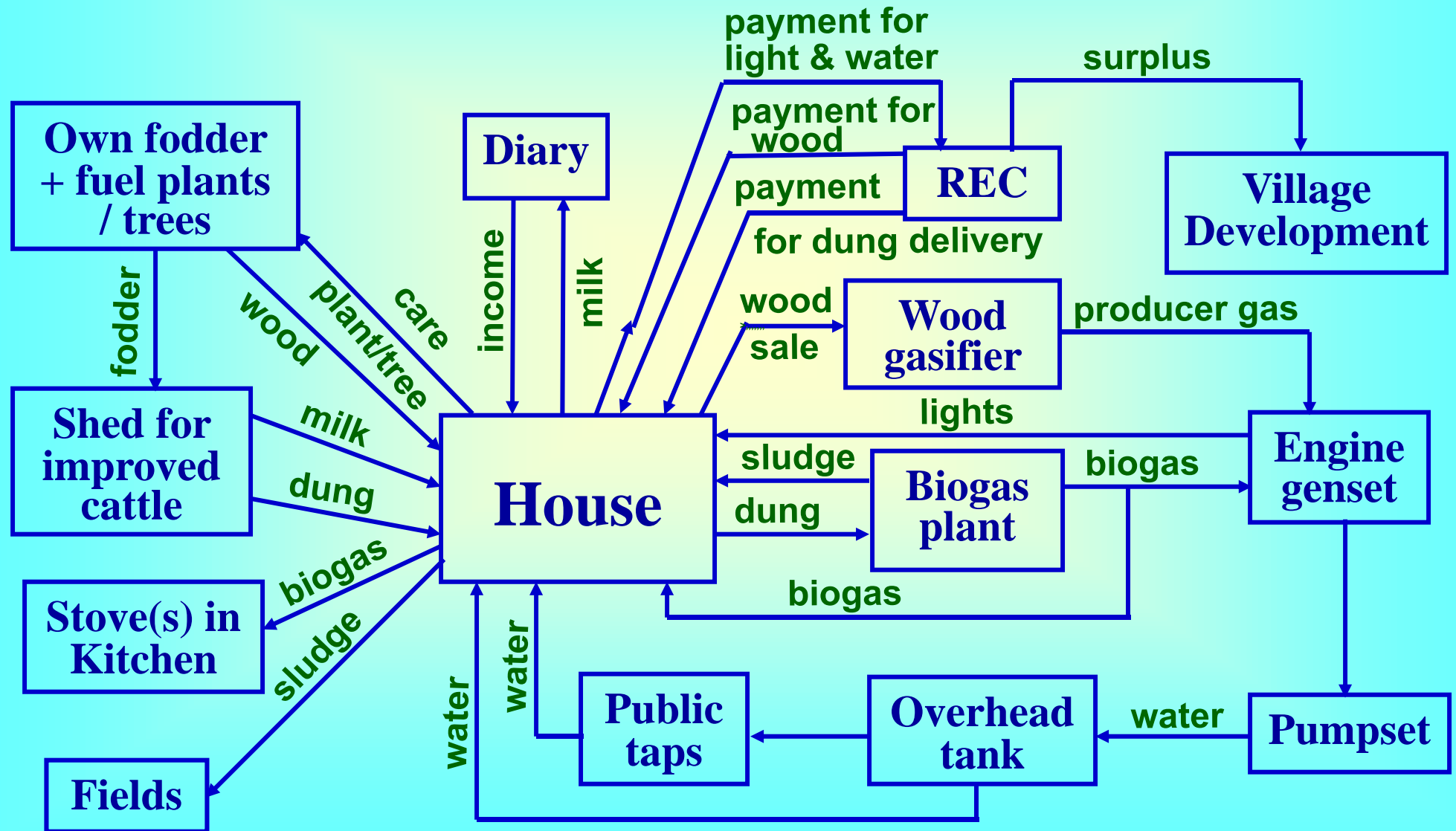
Feasibility Analysis of Gandhian Village Republics....I

- Mathematical modeling : *multiple objective optimization problem { 194 variables, 156 constraints, 5 goals}*
- *Results for a village of 200 families*
 - min initial capital : 36 lacs
 - land required : 273 acres
 - animals needed : 200
 - net annual income : 45 lacs

Feasibility Analysis of Gandhian Village Republics.....II

- *Results for a village of 200 families*
 - min fossil fuel & synthetic fertiliser model
 - initial capital : 100 lacs
 - land required : 960 acres
 - animals needed : 864
 - net annual income : 126 lacs

An Integrated Rural Energy Centre Based on Supplementing the Community Biogas Plant System with a Wood Gasifier and Improved Cattle



Can “Production by masses” compete with Mass production?

- Need to provide all the necessary inputs {*scientific, technical, managerial, financial, marketing, quality assurance etc.*} in a well coordinated manner to accelerate rural industrialization
- IITD is involved in setting up a National Institute for Rural Industrialization at Wardha {MGIRI} to coordinate such efforts {as a project from KVIC}

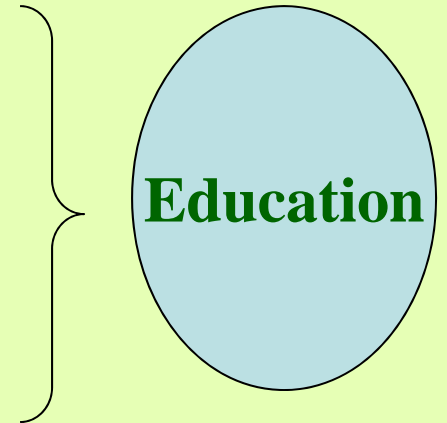
Social feasibility

- Creating an awareness of need for change over to sustainable development
- Improving sustainable technologies (economical & user friendly)
 - agriculture, water resource management, decentralised energy & manufacturing systems, alternative healthcare, low cost infrastructure
- Values for sustainable development.
 - non acquisitiveness, voluntary simplicity, sharing and caring ,compassion, social justice

Social feasibility.....

■ Individual Transformation

- - → Training in mindfulness & introspection
- - → Reorganizing habits
- - → Other methods of inner development

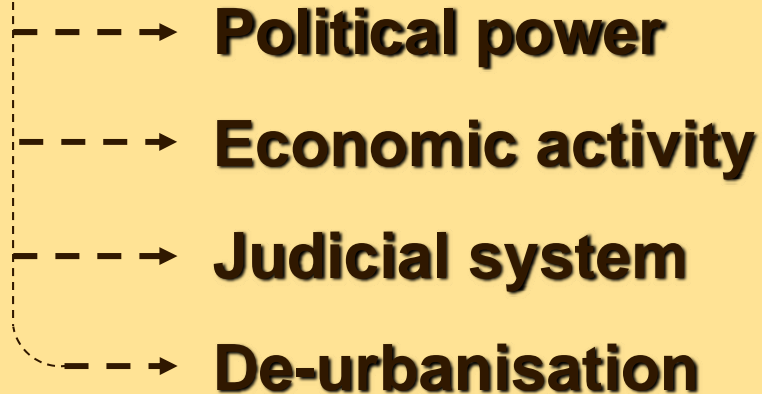


■ Societal Transformation

- - → Creating an awareness of Need for Change

Social feasibility.....

- **Decentralisation**



- **HUMANE PUBLIC INSTITUTIONS / SYSTEMS & ACCOUNTABLE**

- **Administration**
- **Police**
- **Judiciary**
- **Trade & Commerce**
- **Health Care**

Social feasibility.....values

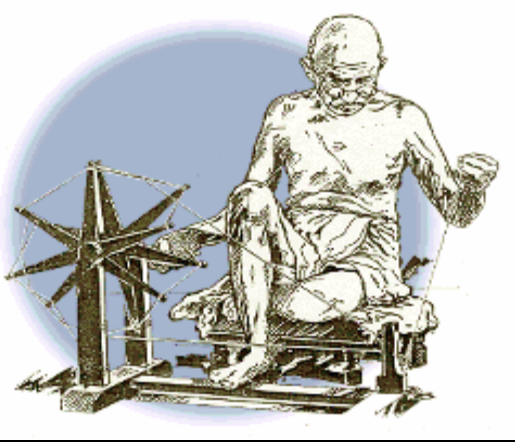
- A society based on aggrandizement of wealth, promoting pride and envy can never be happy !
- Imbibing fundamental values of love , sharing, compassion is a pre-requisite for happiness both at individual level and societal level
- Technology can't solve ethical problems , it can at its best reduce the avenues for unethical conduct
 - lie detectors , advances in forensic sciences, use of information technology to bring transparency in administration

Values & Development

- A nation is truly developed only if the citizens imbibe fundamental human values
- That would automatically ensure directly ,as well as indirectly through proper technological choice, that growth is neither skewed nor accompanied by moral shrinkage

Values & Development

- The technological strengths of a nation are like the “hardware” whose final output depends on the values - the “software”
- This Software should be free from “viruses” --
-- greed, pride, apathy, jealousy, anger, hatred, aggressiveness
- Infusion of Basic human values especially among the urban elite is a pre-requisite for sustainable “development”
- Transfer of attention to underprivileged brethren



Concluding Remarks

- Poverty alleviation is fundamental to safety security & sustainability of the society
- To achieve this objective “Industrial” development should be based on Gandhian Model
- Value education is a pre-requisite for acceptance of this model of development
- **Ignoring these may result in temporary economic growth but could push the world into a social turmoil**
- S,T & M institutions need to take lead in this



Thank
you!