



DHIRAJ SRIVASTAVA
Officer on Special Duty

No. 4062/D/OSD/NAC/2005

भारत सरकार

राष्ट्रीय सलाहकार परिषद

नई दिल्ली

GOVERNMENT OF INDIA
NATIONAL ADVISORY COUNCIL
NEW DELHI

July 27, 2005

Respected Aruna ji,

Please find enclosed the following documents for perusal:-

- (i) Comments of the Department of Land Resources on the NAC Paper on 'Regeneration of Wastelands in India'.
- (ii) Presentation on Water & Sanitation in Rural India by Dr. N.C. Saxena.
- (iii) Presentation on Regeneration of Wastelands in India by Dr. N.C. Saxena.

Yours sincerely,

(DHIRAJ SRIVASTAVA)

Encl: as above

Smt. Aruna Roy,
Member, National Advisory Council,
Village Tilonia, via Madanganj,
Ajmer District,
Rajasthan -305 816.

Comments on NAC paper on Regeneration of Wastelands in India

Non-cultivated lands

According to the Wastelands Atlas of India (2000) published by the Department of Land Resources in collaboration with National Remote Sensing Agency, Hyderabad, 63.85 m Ha area has been identified as wastelands in the country (**Annexure-A**) which can be broadly classified as:-

Forest waste land	14.07 m Ha.
Non-forest waste land	
(i) Treatable waste land	36.98 m Ha.
(ii) Untreatable waste land	12.80 m Ha.

Total	63.85 m Ha
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Land Sat Imagery has identified only 14.07 m Ha as forest wasteland and not 31 m Ha mentioned in the NAC paper. Out of this the extent covered by jutting rock outcrops, sheet rock stone/boulders which are unreclaimable is not known, but this area would have to be reduced from 14.07 m Ha. If 60% is taken as the available cultivable wastelands, the actual treatable area may be as low as 8.7 m Ha. Further, Land sat imagery has not demarcated, by delineation, private lands from the Government lands. A comparison of this department's figures and of the NAC paper is given below :

As per NAC paper			As per WAI, 2000 (million ha.)		
Category of Culturable land	Total Area	Available for optimal Production		Total	Available
1. Cultivable	142	6	Not demarcated		
2. Forest	67	31		14.07	8.07
3. Uncult/non-forest Strips	55	33	All other treatable categories	36.98	36.98
		2			
Total	264	72		51.05	45.68

The above implies that the total available waste land for regeneration is 45.68 m Ha. However, this does not include 120 m Ha (74.5 m Ha. covered by DPAP areas plus 45.79 m ha. by DDP areas) which are not wholly wastelands but are susceptible to improvement in terms of soil and moisture conservation and related activities.

The NAC paper has assumed that productivity of 2 MT per ha. per year of wood from wastelands will wipe out the deficit for wood and non-wood products and create employment. Before the assumption of 2 MT/ha./year yield of wood from these waste lands is made, it is important to consider the gestation period required to produce that much wood. Since there are no alternatives made during the gestation period to meet the people's requirement for fuelwood, the process of degradation of nearby forests will continue unabated. Further, the assumption of 2 MT/ha./year average production from wasteland may be too high. This assumption may be based on growth of fast growing species (e.g. Eucalyptus, poplar, etc.). Elsewhere in the paper, it has been suggested that these species be left for farm forestry and not grown departmentally. Availability of timber/ fuel wood/fodder for meeting the requirements of rural India and the poor may only be possible through raising tree species in Common Property Resources (CPRs).

Under DoLR's Hariyali programme, the emphasis is on water conservation and harvesting. Raising fuel-wood is not a priority under watershed development.

Trees in farming system in India

The gist of the NAC paper is that tree plantation will lead to regeneration of wastelands. Examples from Rajasthan and Tamil Nadu have been given.

The Farm Forestry Programme :

In this connection, farm forestry and the planting of Eucalyptus trees have been discussed and it has been suggested that eucalyptus plantations did not succeed because the import of logs and pulpwood is cheaper than indigenous production. The author has suggested that an

initial tariff of 5% on imported pulp, increasing to 25% in 5 years will provide sufficient time to industry to reclaim barren non-forest lands with short gestation species suitable for pulp.

The contention in the NAC paper for propagating eucalyptus under the farm forestry programme, based on the Punjab, Haryana, UP and Gujarat experience of the 1980s, appears driven by the fact that more information is available on this species. The crash of the market in the 1990s led to a shift to poplar and silver oak. These species are in great demand in the plywood industry. Both are tall growing with straight poles and the rate of growth of poplar is comparable to that of eucalyptus. The present scenario includes all the three species and is more driven by market demand (for example eucalyptus of Punjab, Haryana finding market for apple boxes and tomato packing cases in HP). However, it has to be remembered that in a subsistence economy, any change has to be thought through. Alternative wage employment for the gestation period, which may take from 9-10 years to 12-15 years, if the area is unirrigated and prone to drought/ deficiency in soil moisture during lean periods of the year, would have to be provided. Local ply industry has to be promoted for generating and sustaining demand. Transportation costs that vary from one area to another could also make the programme uneconomical.

Legal problems in harvesting and sale of trees.

The NAC paper has suggested that “trees would become poor people’s banks only when their right of ownership of trees is not disputed and impeded by law or bureaucratic regulations”. In this connection, it is stated that several States have already deregulated as far back as the 1980s (for example HP Forest Produce (Regulation of Trade) Act, 1982) for species like eucalyptus, poplar, siris, kachnar, silver oak, etc. Also Ministry of Environment and Forests has issued guidelines on 15.12.2004 deregulating felling and transit for all species grown on non-forest private lands except sandalwood, red sanders, rosewood, etc. (copy enclosed at Annexure B). Therefore, the facts mentioned in the paper have changed for the better.

Role of industry in farm forestry

The NAC paper emphasizes the potential of tree plantation on degraded private lands if proper market conditions are created. It suggests that industry should be asked to establish links with farmers who will produce raw material if the market can support remunerative prices. Here, the important fact that merits consideration is that highly productive land is used for producing poplar for industry in Punjab, Haryana and HP and the industrial promotion by Bhadrachalam Paper Mills in Andhra Pradesh, JK Paper Mills in Orissa, etc. is by distributing seedlings to farmers in highly productive land areas and not for wastelands. The difference in output between highly productive lands and wastelands could lead to economically non-viable production.

Village lands and watershed development

The paper has given the brief history of watershed development programmes before and after the Hanumantha Rao Committee Report of 1994. Emphasis has been laid on community control over common property resources and over the watershed development programme for their regeneration and for sustained benefits.

In 1994, the Hanumantha Rao Committee Report suggested modifications in the guidelines for securing people's participation in the implementation of watershed development programmes (DDP and DPAP) which was later extended to IWDP also. These suggestions were incorporated in the 1995 Guidelines. Further modifications were carried out in these guidelines, and the Revised Guidelines of 2001, incorporate an exit protocol i.e. arrangements on the termination of projects for handing over assets created to the Gram Panchayat, post project maintenance of assets created through a specially created fund (called the Wastelands Development Fund) and an usufruct sharing mechanism by the Gram Panchayats. With these modifications, sustainability of assets created has been achieved in

later projects. This is evident from the various evaluation studies conducted in the project areas during and after the project period is completed.

The 73rd and 74th Constitutional Amendments include watershed as one of the subjects delegated to Panchayati Raj Institutions (PRIs). In consonance with the Constitutional requirements, the revised Guidelines of 2001, has been further modified in 2003 and called guidelines for Hariyali, wherein the pivotal role for the implementation of watershed projects. has been given to PRIs. Only if PRIs are unable to take up the works, can line departments, and in the absence of both, NGOs, act as PIAs. However, community organization and training can be assigned by ZPs to NGOs directly. The experience of States implementing watershed projects through PRIs is encouraging.

Lessons from evaluation studies

The NAC paper has stated that “most government watershed development investments have yielded disappointing results given the vast resources allocated to date”. Many reasons have been adduced for this situation and are discussed below :

1. The paper states that community management systems are needed and watershed projects can be sustainable only with farmers contribution. Under the present guidelines of Hariyali farmers contribution is 10% of the cost of works executed on private lands and 5% in the case of lands owned by SCs/STs. Panchayats are also supposed to contribute 5% for community lands.
- 2: There is multiplicity of government departments implementing the projects often with different guidelines. It may be stated that DoLR has the largest budget for watershed development. MoEF is only doing a very small bit on forest lands. The Ministry of Agriculture is the only other agency doing some watershed development. However, recently their watershed programmes viz., NWDPPRA has become part of a macro management package where all agriculture funds have been clubbed together including watershed funds and given to the states.

3. The NAC paper states that there is little involvement of State government officials and line agencies in these programmes. It may be mentioned that the States have started exercising some control over these programmes by setting up Commissionerates/ Directorates/ Watershed missions in different States. State involvement has improved since 2001 when the funding pattern was changed and the States started contributing to these programmes. The funding pattern was specifically changed to 11:1 to ensure the involvement of the States in these programmes.
4. The NAC paper states that only limited time is permitted for the participatory work and group formation activities. It also states that there is little impact assessment or evaluation of physical progress after the scheme has run for a couple of years. According to the Hariyali guidelines after the release of first installment a year's time is given for the organization of the community and for group formation. Impact assessment studies have been conducted in 16 States covering 146 projects under IWDP, 1190 projects in DDP and 4805 projects under DPAP in 230 districts of the country. The findings of these studies show that the projects have contributed to the overall improvement of the socio economic conditions of the resource poor and disadvantaged sections inhabiting the programme areas. Mid-term evaluation studies, final evaluation studies and quick evaluations are also conducted and have shown that the participatory approach for watershed development, adopted since 1995 by DoLR, has had an impact in these project areas.
5. The NAC paper states that there is no arrangement for handing over of the structures and maintenance of plantations after a project is completed and therefore the sustainability of the projects gets impaired. While the guidelines provide for an exit protocol and use of the watershed development fund for the maintenance and sustainability of the project, there could be improvements in this regard.

Recently, the Ministry has appointed the Parthasarthy Committee to look into various aspects of the three watershed programmes and suggest improvements. The

recommendations are expected in October, 2005. It is likely that these recommendations would include the various aspects pointed out above and the guidelines then can be further amended to improve the programmes.

Leasing of common lands for industrial plantations

While endorsing involvement of industry in wastelands development, the NAC paper has acknowledged that the response from industry has been lukewarm. In this connection, it may be mentioned that the Investment Promotion Scheme of the Ministry of Rural Development, Government of India, where such enterprises were entitled to 25% subsidy on their capital investment in addition to tax benefits, did not take off and was discontinued in 2003. While channelising the energies and investment of corporate entities for watershed development, through raising plantations, is a laudable idea, the sensitivities involved in the commitment of the Government regarding rigorous implementation of Ceiling Laws in the country will have to be kept in view.

The rest of the paper deals with forest lands for which comments would have to be given by the Ministry of Environment and Forests.

CATEGORY-WISE WASTELAND OF INDIA

S.No.	Category	Total Wasteland (In Sq. Km)	% to total Geographical Area covered
1	Gullied and/or Ravinous land	20,553.35	0.65
2	Upland with or without scrub	194,014.29	6.13
3	Waterlogged and Marshy land	16,568.45	0.52
4	Land affected by salinity/alkalinity-coastal/inland	20,477.38	0.65
5	Shifting Cultivation Area	35,142.20	1.11
6	Under utilised/degraded notified forest land	1,40,652.31	4.44
7	Degraded pastures/grazing land	25,978.91	0.82
8	Degraded land under plantation crop	5,828.09	0.18
9	Sands-Inland/Coastal	50,021.65	1.58
10	Mining/Industrial wastelands	1,252.13	0.04
11	Barren rocky/stony waste/sheet rock area	64,584.77	2.04
12	Steep sloping area	7,656.29	0.24
13	Snow covered and/or glacial area	55,788.49	1.76
	Total Wasteland Area	6,38,518.31	20.17

Source: 1:50,000 scale wasteland maps prepared from Landsat Thematic Mapper/IRS LISS II/III Data

Note: 1,20,849.00 sq.kms. in Jammu & Kashmir is not mapped and hence not considered for calculating the percentage.



भारत सरकार
पर्यावरण एवं वन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT & FORESTS

F.No.8-14/2004-FP
Dated: 15th December, 2004

To

The Chief Secretary
All State Government/ Union Territories.

Subject: Guidelines for Felling and Transit Regulations for Tree Species Grown on Non-Forest Private Lands.

Sir,

The National Forest Policy, 1988 lays down that one third of the geographical area of the country should be under forest/tree cover. The Tenth Five Year Plan mandate is to increase the forest and tree cover in the country to 33% of the geographical area by 2012. This target requires additional 9.97% of the geographical area of the country, i.e. 33.60 million hectare to be brought under forest and tree cover. Since almost 85% of the potential lands for additional tree planting would fall outside the notified forestlands, the involvement of non-government sector, including private individuals, is most crucial for achieving the objective. A balance is also needed between regulation and promotion of forestry in private sector. In view of the necessity and importance of achieving the targets, the matter has been considered by the Central Government and a copy of the guidelines for the simplification of felling and transit regulations of trees grown on Non-Forest private lands is enclosed. The State/UT governments are requested to consider the guidelines for augmenting the pace of the tree plantation on private land.

Yours faithfully,

J V Sharma
(J V Sharma)
15.12.04

Deputy Inspector General of Forests (Forest Policy)

- Copy to ; (i) All State Principal Secretary (Forests)
(ii) All Principal Chief Conservator of Forests
(iii) All Principal Secretaries for Planning, Agriculture, Local Self-Government and Rural Development



GUIDELINES FOR FELLING AND TRANSIT REGULATIONS FOR TREE SPECIES GROWN ON NON FOREST PRIVATE LANDS

OBJECTIVE

The objective is to increase forest and tree cover of the country from present 23.03 per cent to 33 per cent of the geographical area as envisaged in the National Forest Policy, 1988 through the promotion of plantation of tree species on non-forest private lands.

STRATEGY

To request the State Governments to prepare an enabling environment for private plantation by simplifying the procedures for obtaining the permission for felling/transit of tree species/produce thereof grown on private non-forest land so that people are encouraged to adopt Farm/Agro/Homestead Forestry in a major way. In the absence of an enabling environment, private individuals do not have sufficient incentives for forestry, leading to inadequate tree planting on private lands.

APPLICABILITY

These guidelines are not meant for North Eastern States where guidelines have already been issued earlier in compliance of the orders of the Supreme Court. Other State Governments shall also take note of directions of various courts in this context.

TERMINOLOGY

Following are the meanings of some of the important terms used in these guidelines:

"Highly Restricted Tree Species" means such valuable tree species which are mainly found/planted in forest areas in the State/UT concerned. A specific unambiguous list should be prepared and notified by the State/UT. Some examples are Sandalwood, Red Sanders, Rose wood, Khair, Sal, and Deodar.

"Restricted Tree Species" means such species which are found/planted both in forest areas and non forest private lands in the State/UT concerned. A specific unambiguous list should be prepared and notified by the State/UT. Two examples are Teak and Shisoo.

"Other Tree Species" means all tree species which do not come under the categories of "Highly Restricted Tree Species" and "Restricted Tree Species".

"Very Sensitive Areas" means Mangrove, CRZ, notified Eco-sensitive and Urban areas.

"Sensitive Areas" means areas above 1000 metres MSL.

"Other Areas" means areas which do not come under the categories of "Very Sensitive Areas" and "Sensitive Areas".

"Category A Tree Species" means "Highly Restricted Tree Species" and all tree species found/planted on "Very Sensitive Areas".

"Category B Tree Species" means "Restricted Tree Species" and all tree species found/planted on "Sensitive Areas".

"Category C Tree Species" means all Tree Species which do not come under the Category A and Category B Tree species.

"Prescribed Authority" means the authority designated by the State/UT Governments to carry out identified functions under rules and regulations for felling/transit of trees grown on non forest private lands.

PRESCRIBED AUTHORITY (PA)

Prescribed Authorities for authorizing various activities are suggested in the following table.

Category of Tree Species	PA for issuing felling permission	PA for issuing transit permission	PA for issuing transit pass	PA for issuing exchange /in lieu transit passes
A	Not below DCF/DFO	RFO	Forester/Dy. Ranger	Trader registered with Forest Department
B	Not above RFO	RFO	-do-	-do-
C	Permission not required	Permission not required	Pass not required	Pass not required

JWm
19/11/05

OTHER CONDITIONS

Following are the other suggestions while framing new or modifying existing felling and transit rules and regulations.

- 1- A time limit may be fixed within which a decision shall be taken by the PA on an application for felling/transit
- 2- No permission should be required for felling or transit of tree for bona-fide domestic use of the owner of the trees in the rural areas within the boundary limit of the Gram Sabha
- 3- Individuals may be encouraged to plant more trees than permitted for felling but this should not be a conditionality.

GENERAL

- (i) State/UT Governments are free to have more simplified procedures than suggested above, provided that they enhance the incentive to take up farm/agro-forestry household.
- (ii) If any State/UT already have simpler procedures they may continue with them and further simplify the same to enhance the incentive to take up farm/agro-forestry.
- (iii) State/UT Governments are requested to send a copy of rules and regulations applicable in their jurisdiction, particularly after the simplification done.
- (iv) States/UTs must give effective publicity to the simplified procedures for felling of trees and transit of forest produce thereof.
- (v) State/UT Governments may try to limit the number of category A and category B species to (say) five in each category.

[Handwritten signature]
 10/11/05

MISSION AND VISION:

Keeping in view the objective and strategy stated above and without compromising the interest of the forest and tree conservation the mission and vision of the guidelines are as under:

MISSION (SHORT TERM GOAL)

To create a conducive environment which encourages individuals to adopt farm/agro/homestead forestry. (The ideal would be a list of not more than 3-5 category A species and no category B species at all.)

VISION (LONG TERM GOAL)

Felling and transit restrictions with respect to trees planted on non forest private lands are completely removed.

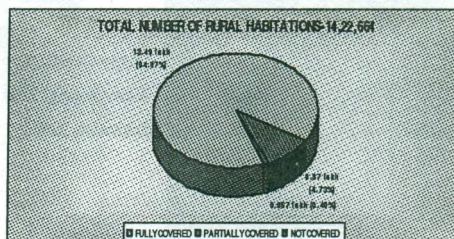
[Signature]
15/12/04
S. V. SHARMA
Dy. Inspector Genl. of Forests
(PP, MP&P&FC)
Min. of Environment & Forests
Govt. of India, New Delhi

Water & Sanitation in rural India

N.C. Saxena
National Advisory Council
30th July 2005

1

Coverage Status (as in Aug 2004)



2

Ministry claims 95% coverage in water

- Why then spend 5,000 crores annually on drinking water schemes?
- What is the need of a Separate Department?
- Where is the catch?

The definition of 'providing' water is very liberal: source need to be within 1.6 km, one hand pump would suffice for 250 persons and 40 litres a day per adult in a habitation would be taken as fully covered (FC).

3

Survey in UP, Rajasthan and HP

- 62 per cent of households do not have water supply in or near their homes;
- 71 million households spend 102 billion hours per year to collect water from outside the home.
- Only 7 per cent of households are connected with sewerage facilities.
- Only 9 per cent of households have toilet facility inside the house

MTA, X Plan p.221

4

Study of 74 districts in 1998

- 59% people felt supply was inadequate
- 12% households said that the quality of water was not potable
- 98% households reported that there is no regular water quality testing of drinking water sources
- 20% sources non-functional at any time
- Of these, half have minor defects
- 35% defects remain unattended for more than a month
- 83% people had never met a water official

MTA IX Plan

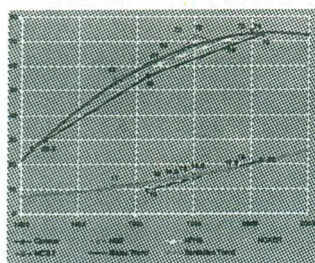
5

Coverage of Problem Villages/ Habitations under various Surveys

Survey Year	Number of Problem villages	Covered in the next 5 years
1972	1,50,000	94,000
1980	2,31,000	1,92,000
1985	1,61,722	1,61,652
1994	1,40,975	81,418
1997	3,90,117	1,89,000

6

Usage of Water and Sanitation Facilities in Rural India (1980-2001)

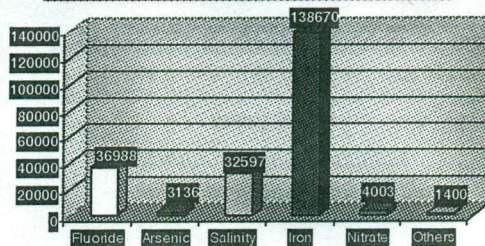


Usage (2001)
Water Supply 73 %
Sanitation 22%

7

No. of Quality Affected habitations

Total No. of Quality Affected Habitations - 2,16,794



8

WATER- An Overview

- State subject – devolved to Panchayati Raj
- Financial assistance by the Centre under ARWSP and Sector Reforms/Swajaldhara
- Over Rs. 48,000 crore invested since independence by the Central and State Govts.– 3.7 million hand pumps, 1,45,000 piped water supply schemes installed
- Rapid growth in demand – temporal and spatial shortages
- Issues -Equity in coverage, sustainability of sources and systems, ground water depletion and emerging water quality problems

9

Why is the problem persisting?

- Depletion of groundwater level
- Sources goes dry - deforestation
- Heavy emphasis on new construction and poor attention to maintenance
- Neglect of Traditional Water Management Strategies, and limited impact of watershed programs
- Increasing incidence of Quality Problems like Arsenic and Fluoride etc.

10

Poor Operations & Maintenance

- No involvement of Community
- Handing over of assets to Gram Panchayats - a formal exercise, but ineffective
- O & M Government's Responsibility - according to people
- Piped Water Supply Systems have low dependability in Rural Settings
- Short life of projects - 5 to 7 years

11

Groundwater - Some Facts

- 90% rural population depends on groundwater sources for drinking water purposes
- 5% groundwater for drinking water
- 90% groundwater for irrigation
- 5% groundwater for industrial & other uses

12

Groundwater

- Can easily be stolen by the rich
- Incentives for over-exploitation
 - Government's subsidies
 - Highly subsidised and fixed electricity tariffs for irrigation, which leads to
- groundwater pollution
- Fall in water levels & quality
- Enhancing inequity of access

13

Water Famine – How Real?

During April-May 2000, the Maharashtra Government was supplying drinking water through tankers in about 3000 villages, many of these had a well-irrigated sugarcane crop. Thus groundwater was being monopolised by rich farmers, who also took advantage of easy availability of two other scarce resources – electric power and capital. The rich farmers thus transferred the responsibility of satisfying people's need for drinking water to the state, with the state abetting in the overuse of water by supplying them cheap power.

Mid-term Review of the 9th Plan

14

Problems

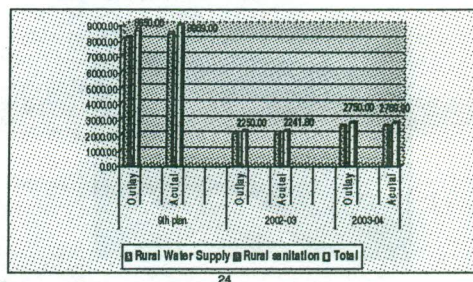
- No control on extraction of groundwater
- Depletion of groundwater level
- Falling groundwater table forces to change simple hand pump technology to costly Piped Water Supply Schemes
- Increasing incidence of Quality Problems
- Sources go dry - deforestation
- Heavy emphasis on new construction and poor attention to maintenance
- Programme is supply driven with little sense of ownership by the people
- Neglect of Traditional Water Management Strategies
- No links with watershed development

These factors are critical and affect sustainability of rural water supply programme

16

Utilization of Funds

Rs. In crore



24

Allocation & release to Bihar (crores)

Year	Allocation	Release
1997-98	94	0
1998-99	118	0
1999-00	94	47
2000-01	47	0
2001-02	73	0
2002-03	74	37
2003-04	63	32
Total	562	116

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Sector Reforms in 1999

20% of annual outlay will be earmarked to States willing to implement the following elements:

- Adoption of demand-driven approach
- Focus on village level capacity building
- 10% capital cost sharing by users and 100% sharing of O&M cost by users
- Rain water harvesting

Swajaldhara started in 2002

18

Issues

- Are people really contributing?
- Is maintenance being done by them?
- Are they collecting user charges?
- Are the poor and disadvantaged section benefiting?
- Role of contractors?

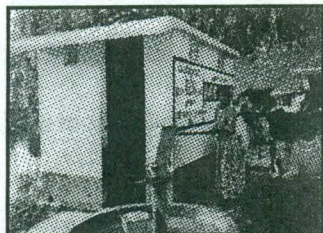
19

Field experience

- The supply driven (ARWSP) and demand driven (Swajaldhara) are running concurrently, causing confusion
- Villages with quality problems is increasing rapidly
- People's contribution comes from contractors
- Quota of handpumps for MLAs makes a mockery of 'planning from below' concept
- PHED feels alienated, and DRDAs are overworked
- Little transparency in handling funds
- O&M still considered government's responsibility
- Plenty of funds for new pumps, little for repairs leading to short life of pumps
- Many well maintained pumps have been 'privatised'

20

Total Sanitation Campaign



21

Sanitation scenario in India

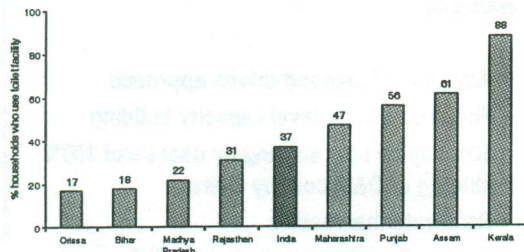
- Sanitation coverage of 1% & 27% for rural and urban areas respectively in 1981
- As per 2001 Census – overall 37% (rural-22%, urban-74%)
- 64% of India defecates in open, resulting in 20,000 MT of excreta everyday endangering drinking water sources
- Only 15% of primary schools have toilets
- Persistent high Infant Mortality Rate
- Half a million children below five years of age die due to diarrhea annually

60% deaths due to water related diseases

22

37% of households in India use a toilet facility

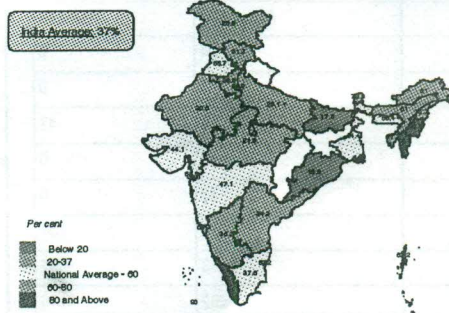
Toilet facility usage in selected states (%)



Source: MICS 2000, UNICEF India

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Households using toilet / latrine facility

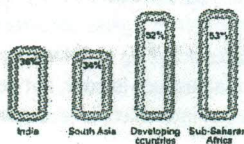


Source: MICS 2000, UNICEF India

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SANITATION

Percentage of the population using adequate sanitation facilities
Source: SOWC 2004



GOV - 2004/05, 2005/06, 2006/07
2003/04

Why Sanitation is lagging behind?

- Initial focus on water supply rather than on sanitation
- Low societal priority, constraints of water and space
- Low awareness about benefits of better hygiene practices
- Lack of motivation among implementers
- Building a toilet was considered to be a high cost investment
- Sheer convenience of open defecation
- Usage even far less - Indira Awaas Yojana latrines often used as an extra room
- Lack of supply chain - materials and skills were not locally available

Technology needs plenty of water

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Government Initiatives

- Central Rural Sanitation Programme (CRSP) was launched in 1986
- CRSP could not accelerate Sanitation Coverage because of
 - Inadequate emphasis on IEC
 - Limited budget allocation
 - Heavy reliance on subsidy
 - Lack of community participation
- Total Sanitation Campaign (TSC) launched in 1999

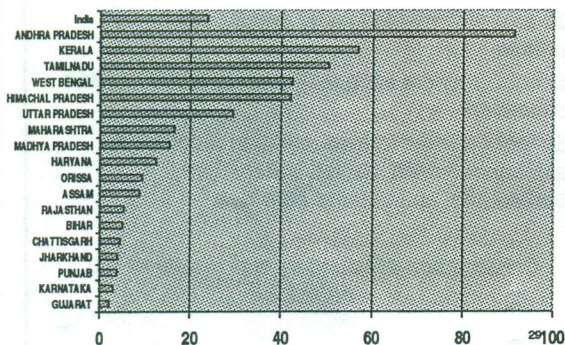
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TSC – Strategies & Principles

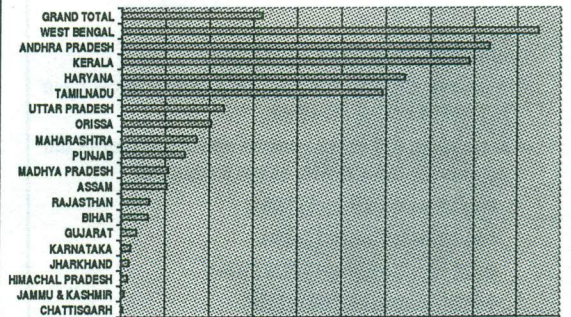
- Greater emphasis on attitudes and behavioral change through IEC
- Demand driven, participatory approach – IEC to generate demand for individual, school, Anganwadi, community sanitary facilities
- Shift from high to low subsidy, with a range of technological options
- Implementation of TSC with district as a unit
- Alternative delivery mechanism, effective supply sanitary products and services
- Promotion of School Sanitation & Hygiene Education (SSHE)
- Integration of water, sanitation, health and hygiene education

28

Exp as % of project outlay (TSC)



IHLH constructed as % of project target



Success Stories

- Nandigram –II in East Medinipur became first fully covered block
- Many more blocks have achieved full coverage
 - West Bengal (10), Andhra Pradesh (3), Tamil Nadu (2), Tripura(5)
- About 10 million households covered with toilets since April 2002
- 40,000 Schools covered

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Progress is disappointing

- Delay in release of state share
- Second instalment not demanded in many cases
- Low priority on IEC – inadequate social mobilisation & community participation
- IEC component is a great bonanza for manipulative NGOs
- Many states adopting high subsidy schemes
- Quality & actual use is poor, not being monitored
- PRIs are not interested, unless commissions can be made

Only one-third projects can be said to be satisfactory

32

Use of toilets in Orissa

District	Total number of toilets visited	Fully used	Partially used	Not used	Incomplete construction or not constructed
Balasore	121	46	23	34	18
Ganjam	120	35	30	28	27
Sundargarh	120	16	13	78	13
Total	361	97	66	140	58

33

School sanitation

- Out of 7,00,000 primary schools in India only half have safe drinking water and only one in ten have sanitary facilities.
- Even existing toilet are often locked or used only by teachers
- Constraints: lack of water for flushing, unsatisfactory arrangements for O & M, and inadequate linkages with other aspects of school life

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Balasore, Orissa

- officially 30% schools have toilets
- A survey showed that only 1% of the schools have toilets in working condition
- Even when the school had a toilet the students did not use the toilet in 51% cases because of
 - ❖toilet being defunct (17%),
 - ❖toilet being locked (18%),
 - ❖not used to using toilets (11%),
 - ❖toilet smells and dirty (5%)

35

Mysore School Project 1995–2000

- 20 schools provided water supply, toilets and urinals
- School teachers were motivated to teach hygiene education
- School cabinets formed, children involved in sanitation, health, sports, water supply, horticultural and cultural activities

Construction of boundary wall makes all the difference

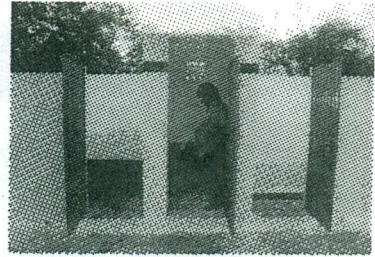
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Field visit to 40 schools

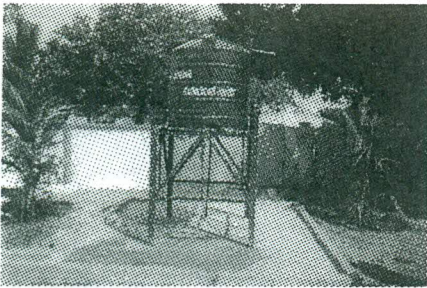
- almost everywhere schools have functional toilets, maintained by students
- demand from the village, schools, politicians, ministers, and bureaucrats
- Charts and reports being maintained
- Boundary wall - provides security against encroachments; teachers and students then start identifying themselves with the entire compound; it becomes clean and green

schools are beginning to become 'fun places'

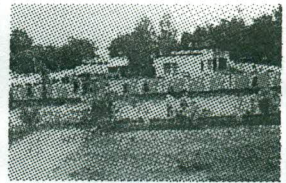
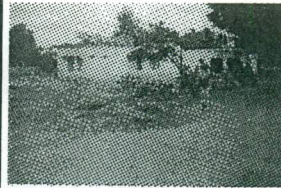
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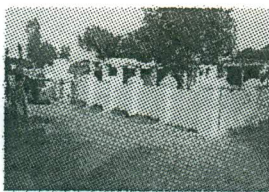
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40



41

Thank you



42

Regeneration of Wastelands in India

N.C. Saxena
National Advisory Council
30th July 2005

1

INDIA - GEOGRAPHICAL AREA (in million hectare)

2

INDIA - GEOGRAPHICAL AREA (in million hectare)

329 TOTAL
304 RECORDS AVAILABLE
264 FIT FOR VEGETATION

3

INDIA - GEOGRAPHICAL AREA (in million hectare)

329 TOTAL
304 RECORDS AVAILABLE
264 FIT FOR VEGETATION

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graph TD
    A[264 FIT FOR VEGETATION] --> B[142 UNDER CROPS]
    A --> C[122 UNCULTIVATED]
    C --> D[67 FOREST LANDS]
    C --> E[20 VILLAGE LANDS]
    C --> F[35 WITH FARMERS]
```

4

RAVINOUS LAND

Ground



Ravinous land near Firozabad along Yamuna river

DEGRADED FOREST

Ground



Degraded forest as seen to the north & north-east of Ramganga reservoir, F.P.

UPLAND WITHOUT SCRUB

Ground



Why not regenerate unculturable wastelands?

- Too degraded & hence expensive
- Remote from village, protection and participation not possible
- Vague tenure, open access lands
- Likely to relapse into degradation again, if root cause not tackled
- No linking of these lands with farmers' problems: low productivity, drought proofing, water recharge

Hence give it to industry

8

Gujarat' GO 17th May 2005

Wastelands upto 2000 acres can be given to private companies and farmers on lease for 20 years, rent will be Rs 40 per acre

Vadilal Industries Ltd. - 316 acres

Galaxy Crystal -300 acres

9

Do not lease out village commons or degraded forests

- These lands are a vital source of living for the poor, are dispersed
- These require neither capital investment, nor higher technology, but protection and recuperation
- large industries consume just a fraction of forest products, 90 percent of forest raw material is processed by 25,000 saw mills and a larger number of cottage units
- paper industry will raise short-term and quick growing species in place of multi-layer mixed forests obtained through regeneration. Its ecological implications need to be taken into consideration
- The problem of paper industry is locational; industries got established close to government forests, where as raw material is available in green revolution areas.
- establish a new pulp making plant close to farm forestry areas, and transport pulp to the paper mill.

If industry produces its own raw material, who would farmers sell to?

10

Allotment of government Wasteland land to the Poor

State	Area 000 ha	State	Area 000 ha
• A.P.	1681	• Bihar	390
• U.P.	996	• Orissa	290
• Gujarat	552	• Assam	236
• Karnataka	549	• Kerala	183
• Maharashtra	409	• West Bengal	173

Total (including others) = 5,798,000
 Treated under watershed = 16,500,000
 Net gain in cultivated land = Zero

11

Two models in farm forestry

- Complementary agro forestry
- Replacement farm forestry

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Complementary agro-forestry

- Increase soil productivity
- Increase value of output per unit of land/labour
- Supplies leaf compost and manure
- Maintains livestock through grasses
- Reduces risk
- Trees as contingency

13

Why do farmers like to plant Trees?

- Little space/infertile land
- Low capital requirement
- Divisible technology
- Low labour input
- Labour required in off-season, flexibility of timing in harvesting

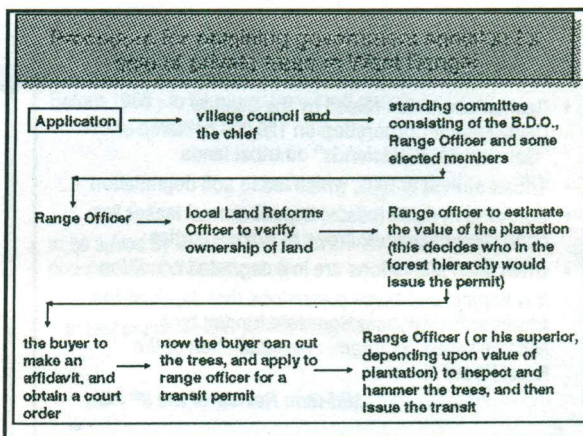
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Recommendations

- Increase duty on imported pulp
- Liberalise legal and procedural framework
- stop subsidies on government supply
- Link farmers with industries
- Promote new uses such as gassifiers
- Research to identify other short-rotation, high-value species, such as jatropha, or herbal plants
- Identify species which complement agricultural production
- watershed approach

There is no department in GOI or the states to pursue agro-forestry

15



Central India - Characteristics

- Mono-cropped & low productivity of land
 - Soil and water erosion
 - Vast areas of uncultivated & forest lands
 - Tribal population & distress migration
 - Road and rail network is poor
 - Depleting groundwater
- Requires integrated land and water management

Cohesive rural population amenable to community participation, strong presence of NGOs

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CAG Report on the Drought Prone Area Programme

- 2195 crores spent on DPAP alone
- Drought prone area increased from 55.3 m ha in 1973 to 74.6 m ha in 1995
- Insufficient evaluation of the quality of works, even run-offs not measured
- Survival rate of plantations was very low
- Core sector activities very poor in Bihar, Karnataka, Maharashtra, MP and Rajasthan

18

Problems in Watershed Development

- Little participation of local people;
- Absence of felt need;
- Pressure to spend substantial resources by a fixed deadline;
- Limited time permitted for preparatory and group formation activities;
- Unclear criteria for selecting areas and villages;
- Poor maintenance

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Other reasons for poor implementation

- Insecurity about availability of funding
- little impact assessment or evaluation of physical progress
- little involvement of senior State Government officials
- Horizontal linkages between various line agencies at the district level are very weak
- Unclear criteria for selecting areas and villages or for withdrawing from a village

20

Cashew plantations in Orissa

- Cashew plantation raised by the Cashew Development Corporation on 120,000 hectares of "Government Wastelands" on tribal lands
- Tribals shifted to hills, which led to soil degradation
- Corporation made losses, it gives annual leases for harvesting of cashew crops to private parties
- Often such plantations are in a degraded condition
- It is ironical that these plantations that deprived the tribals of their possession were funded by a scheme called, 'Economic Rehabilitation of the Rural Poor'.

Mid-term Review of the 9th Plan

21

Villages as a homogenous entity?

- No tradition of management
- Factionalism, class and caste divisions
- Possibilities for migration and mobility
- Market forces integrate villages with urban economy
- Social and administrative ethos increases the dependence of the poor on the village elite and petty bureaucracy, and at the same time make them compete within themselves for limited favours from government; e.g. Indira Awaas Yojana

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Characteristics of successful projects

- They devote significant resources to social organisation
- Staff has skills in social organisation
- Project leaders are committed to participation
- Donors or senior officials put pressure to adhere to participatory approaches
- Project monitoring explicitly checks whether social organisation is pursued
- Incentive for staff members to undertake participation
- Communities influence field staff work

23

Farmers' contribution has many advantages

- They develop a sense of ownership
- They then demand better quality
- Leads to transparency
- Fund could be used for maintenance
- Reduces financial burden on government

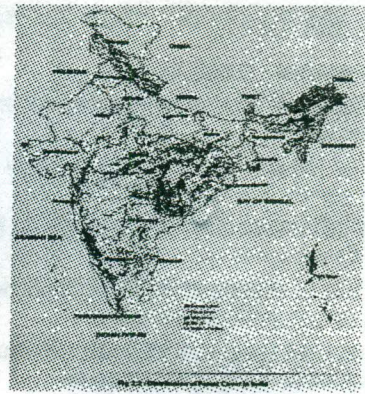
As in other programmes, this contribution comes from contractors

24

Suggestions

- Most problems are cross-sectoral
- Changes are needed in the way field machinery functions: NGOs, panchayats, and civil service
- Integrate programmes at the GOI level
- Until governance improves, it would be better to reduce allocation for the scheme

26



26

Reality of India's Forest

- ✓ Large percentage of poorest dependent on forests (100 million)
- ✓ Degradation a bigger problem than deforestation
- ✓ Tree cover has more or less stabilized

27

Changes in Forest Policy

- Before 1988 - to be saved from local people for urban - industrial consumer;
- vs.
- And now
- Forests
- to be saved by local communities & with them from illegal poachers for livelihood needs

largest experiment in participatory forest management launched in 1990

28

Success may not be sustainable

- Project brings new funds and opportunities of wage employment
- Poor may shift their pressure to another forests which is not under JFM
- Per ha cost is very high in EAPs

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Constraints of Government Policy

- Protecting vs. non-protecting people
- NTFP marketing & dilution of Act 40/1996
- Panchayat vs. village
- Silvicultural issues
- Lack of watershed approach
- Distribution mechanism unclear
- Rigidity in the working of Forest Department
- gender issues
- Immediate needs are not taken care of

30

Kendu leaf (KL) collection in Orissa

- 15 lakh poorest - mostly women
- Orissa leaves of a better quality than AP and MP, yet lower wages
- Govt gets 150 crores as royalty - for every Rs to plucker royalty is 3 Rs
- Royalty on Bauxite is Rs 30 per tonne, on KL 12,000 Rs per tonne
- Unlike MP, no sharing of royalty with pluckers as bonus, no group insurance scheme
- Often payment is delayed by 3 to 4 months forcing the pluckers to mortgage their cards

31

NTFPs

- Monopoly with traders, industry and govt. parastatals
- Distorted markets even for non-nationalised products
- Denationalise NTFPs gradually
- Set up promotional Marketing Boards, as distinct from commercial corporations
- Dissemination of information, reducing risk for traders, increase number of traders, encourage direct contact with industry
- Setting up of processing units

32

To sum up,

- Review NTFP policies
- Change silvicultural practices, produce more gatherable biomass than timber
- Better utilisation of degraded private lands through agro-forestry
- Imposition of tariff on import of pulp
- Integrated land use management & watershed development
- Prevent tribal land alienation

Governance reforms are the key

33

A Puzzle

Name the machine

- which is run on solar energy,
- manufactures food out of water and CO₂,
- is powerful enough to split rock,
- and is available in thousands of models with different colours?

TREES!

34