## Ontents

INTRODUCTION		
NAUGURAL	SESSION	
	OPENING ADDRESS	
	Water Harvesting in a New Age A Agarwal	1
age of the state of	PORTRAIT OF RURAL WATER ENGINEERS	
19.00	Waterworks India S Joshi	8
1000	GUEST SPEECH	
- Canada China	B Patil, Union Minister for Rural Areas and Employment	14
	INAUGURAL SPEECH	
	K R Narayanan, President of India	15
JRAI WATE	R HARVESTING TRADITIONS	
	CENTRAL HIGHLANDS	
China China	Traditions to the Rescue A Desai and S Ghosh	19
and the same	The Bounty of Bundelkhand K Gandhi and S Kirtane	22
-DI -	Vidisha's Lifeline A Yadav	28
100 PM	DECCAN PLATEAU	
000	Decline of a Grand Tradition M Rajankar and Y Dolke	30
	Riches of Rayalaseema V Gangadhar	33
	EASTERN GHATS	
	Water Management in the Saora Hills PK Chhotroy	43
	EASTERN COASTAL PLAINS	
	United They Work P K Nayak	46
B 184	PAKISTAN	
-		50
-	Different Strokes A Farooque	30
	SRI LANKA	
	, ,	58
URAL WATE	SRI LANKA	
URAL WATE	SRI LANKA  Varieties of Water Harvesting R de S Ariyabandu	
RAL WATE	SRI LANKA  Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES	
JRAL WATE	SRI LANKA  Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION	58
JRAL WATE	SRI LANKA  Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION  Learning from Nature C Norphel	58
RAL WATE	SRI LANKA  Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION  Learning from Nature C Norphel  THAR DESERT	58 65
RAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht	58 65
RAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT  Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS  Many Times Over K C B Raju The Awakening S Antala	58 65 68 70 75
JRAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju	58 65 68 70
JRAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT  Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS  Many Times Over K C B Raju The Awakening S Antala	58 65 68 70 75
URAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta	58 65 68 70 75 78
PRAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  ER HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh	58 65 68 70 75 78
JRAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION	58 65 68 70 75 78 83
JRAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar	58 65 68 70 75 78 83 85
JRAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar Dramatic Turnaround R Mahapatra	58 65 68 70 75 78 83 85 86 88
URAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar Dramatic Turnaround R Mahapatra Laporiya's Labour of Love L Singh and J Singh	58 65 68 70 75 78 83 85
URAL WATE	SRI LANKA  Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION  Learning from Nature C Norphel  THAR DESERT  Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS  Many Times Over K C B Raju  The Awakening S Antala  Women and Water Harvesting N Barot and S Mehta  Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION  Quality Matters L J Singh  CENTRAL HIGHLANDS  Relying on Old Sources G Gurjar  Dramatic Turnaround R Mahapatra  Laporiya's Labour of Love L Singh and J Singh  Revival through Rivers H Jagawat	58 65 68 70 75 78 83 85 86 88 101 104
JRAL WATE	SRI LANKA  Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION  Learning from Nature C Norphel  THAR DESERT  Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS  Many Times Over K C B Raju  The Awakening S Antala  Women and Water Harvesting N Barot and S Mehta  Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION  Quality Matters L J Singh  CENTRAL HIGHLANDS  Relying on Old Sources G Gurjar  Dramatic Turnaround R Mahapatra  Laporiya's Labour of Love L Singh and J Singh  Revival through Rivers H Jagawat  Jhabua: A Green Miracle R Mahapatra	58 65 68 70 75 78 83 85 86 88 101 104 107
JRAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar Dramatic Turnaround R Mahapatra Laporiya's Labour of Love L Singh and J Singh Revival through Rivers H Jagawat Jhabua: A Green Miracle R Mahapatra The Need for Check Dams G T Bhimte	58 65 68 70 75 78 83 85 86 88 101 104
URAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar Dramatic Turnaround R Mahapatra Laporiya's Labour of Love L Singh and J Singh Revival through Rivers H Jagawat Jhabua: A Green Miracle R Mahapatra The Need for Check Dams G T Bhimte EASTERN HIGHLANDS	58 65 68 70 75 78 83 85 86 88 101 104 107 117
JRAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar Dramatic Turnaround R Mahapatra Laporiya's Labour of Love L Singh and J Singh Revival through Rivers H Jagawat Jhabua: A Green Miracle R Mahapatra The Need for Check Dams G T Bhimte EASTERN HIGHLANDS Jaldhar Model: Capturing the Raindrop D Karmakar	58 65 68 70 75 78 83 85 86 88 101 104 107
JRAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar Dramatic Turnaround R Mahapatra Laporiya's Labour of Love L Singh and J Singh Revival through Rivers H Jagawat Jhabua: A Green Miracle R Mahapatra The Need for Check Dams G T Bhimte  EASTERN HIGHLANDS Jaldhar Model: Capturing the Raindrop D Karmakar INDO-GANGETIC PLAINS	58 65 68 70 75 78 83 85 86 88 101 104 107 117
URAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar Dramatic Turnaround R Mahapatra Laporiya's Labour of Love L Singh and J Singh Revival through Rivers H Jagawat Jhabua: A Green Miracle R Mahapatra The Need for Check Dams G T Bhimte EASTERN HIGHLANDS Jaldhar Model: Capturing the Raindrop D Karmakar INDO-GANGETIC PLAINS Dihra's Dividends S Ranjan	58 65 68 70 75 78 83 85 86 88 101 104 107 117
URAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar Dramatic Turnaround R Mahapatra Laporiya's Labour of Love L Singh and J Singh Revival through Rivers H Jagawat Jhabua: A Green Miracle R Mahapatra The Need for Check Dams G T Bhimte  EASTERN HIGHLANDS Jaldhar Model: Capturing the Raindrop D Karmakar INDO-GANGETIC PLAINS Dihra's Dividends S Ranjan  DECCAN PLATEAU	58 65 68 70 75 78 83 85 86 88 101 104 107 117 118
PURAL WATE	SRI LANKA Varieties of Water Harvesting R de S Ariyabandu  R HARVESTING PROGRAMMES  TRANS-HIMALAYAN REGION Learning from Nature C Norphel  THAR DESERT Modernising Traditional Systems R P Bisht  THAR DESERT/WESTERN COASTAL PLAINS Many Times Over K C B Raju The Awakening S Antala Women and Water Harvesting N Barot and S Mehta Manna from the Rooftop S Choudhury  NORTHEASTERN HILL REGION Quality Matters L J Singh CENTRAL HIGHLANDS Relying on Old Sources G Gurjar Dramatic Turnaround R Mahapatra Laporiya's Labour of Love L Singh and J Singh Revival through Rivers H Jagawat Jhabua: A Green Miracle R Mahapatra The Need for Check Dams G T Bhimte EASTERN HIGHLANDS Jaldhar Model: Capturing the Raindrop D Karmakar INDO-GANGETIC PLAINS Dihra's Dividends S Ranjan	58 65 68 70 75 78 83 85 86 88 101 104 107 117

-	CENTRAL HIGHLANDS/DECCAN PLATEAU/WESTERN GHATS/WESTERN COASTAL P Small but Powerful S Kulkarni	LAINS <b>130</b>
7/1 (1) p	WESTERN GHATS/WESTERN COASTAL PLAINS	
	Springs of Hope P Basak and K N Remani	132
	Recharged Wells B J Vasoya	134
	Drought-Proofing Parched Lands M Mehta	136
	Women's Power M Vaidya	138
	Community Inventorisation S Chattopadhyay	141
- C	Stepping Out of a Paradox K Suja and N M Nayar	144
	The Kerala Experience KPP Preman	146
	Alleppy's Alternate Y Kattunkathayil EASTERN COASTAL PLAINS/TAMIL NADU UPLANDS	149
	The Rise of a Phoenix R Seenivasan, C R Shanmugham and M P Vasimalai	152
	TAMIL NADU UPLANDS	
	Sweet Success N V Pundarikanthan	155
	EASTERN COASTAL PLAINS	
Section and the second	Born Again T K Ramkumar	157
CHARLES TO JA	Healing a Scarred Land A Pai and N Parthasarthy	158
A PARTY	Pond Purification A Kalimuthu	160
MARKET STATE	Return to Roots G Vasudeo	162
Colombia Colombia	SOUTH ASIA	
<b>阿尔克里斯斯</b>	Bangladesh: Search for New Solutions R Paul	165
	Nepal: Nascent Efforts D N Dhungel	167
	CHINA	
	Weak Water Becomes a Growing Point Q Zhu, C Liu, H Mou, H Wang,	
- SECTION - SECTION	H Kung, Z Wanjun, L Zhijun and C Jiansheng	170
	SOUTHEAST ASIA	
The second	Glimmers of Hope A Appan	183
1	ISRAEL	
The second second	Redeeming Negev's Heritage A Gogte	186
To or wind to the later than	KENYA	400
	A Way Out J M Kiongo	189
LIDRANI WATE	R HARVESTING PROGRAMMES	
OKDAN WAIL	CHENNAI	
	The Chennai Experience S S Nair	193
	Chennai's Concrete Coffin S Raghavan	199
Name and Address of the Owner, where	Quenching Chennai's Thirst R Jeyakumar	201
A PROPERTY OF	AIZAWL	201
		207
A STATE OF THE PARTY OF THE PAR	Rainwater Retains Relevance Dunglena DELHI	207
		211
	Capital Hope A Banerjee and M Bhatnagar KHANDWA	211
25		215
nH .	<b>Khandwa's Water Mafia</b> <i>J Nagda</i> UDAIPUR	215
111000		217
11(333	A Languishing Legacy T Razdan	217
	NAGPUR Taylanda a Madal Faccity, B Cabacrabhaianas	224
	Towards a Model Ecocity P Sahasrabhojanee	221
	HYDERABAD  Paral-la Parana (6.4 Mars)	224
A CONTRACTOR OF THE PARTY OF TH	People's Power K L Vyas	224
-	GERMANY	220
3) (B) (B)	Learning the Value of the Raindrop H Büttner	228
<b>翻加 翻馬</b>	JAPAN AMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMAMA	222
	Rainwater Utilisation in Tokyo M Murase	233
27 PH 19 1	SINGAPORE	
	The Singapore System A Appan	236
VALATED LIABY	ECTING TECHNICION	
WAIER HARV	ESTING TECHNOLOGY	
	GEOGRAPHICAL INFORMATION SYSTEMS AND REMOTE SENSING	
	A Suitable Site K H V Durga Rao, V Hariprasad and P S Roy	243
	COMPUTER MODELLING	
	Simulating a Solution V Vyas	246

4.

**5**.

		ODOLINDAMITED DEGLIADOS DEGLOVO	
		GROUNDWATER RECHARGE DESIGNS Innovating Recharge Designs K C B Raju	251
	10001	UNDERSTANDING TRADITIONS Unravelling Secrets: The Ramtek Model S Puranik, A Deshpande and Y Pawshe	254
	-	SIZE SELECTION  Best of Both Worlds K D Bhatt	258
	100	WATER PURIFICATION  Filtering Finesse G Pradhan	262
		RUNOFF CAPTURE AND WASTEWATER TREATMENT  **Akshaydhara:* An Urban Solution S K Gupta and M Shah	264
		URBAN WATER HARVESTING	
		Small Yet Effective K R Gopinath LAKE RESTORATION	271
	-	Lake Lustre M S Kodarkar ENHANCING AGRICULTURAL PRODUCTION	274
		<b>Boosting Yields in Semi-arid Regions</b> R K Sivanappan AUGMENTING TRADITIONS	277
	THE REAL PROPERTY.	Where Traditions and Science Meet R N Athavale COMPUTERISED DATABASES	282
		Enhancing Efficiency in Freshwater Use M Fujita	293
Ď.	POLICY DIMEI		
		REVIVING DECAYING SYSTEMS  A Case for Rainwater Harvesting A Vaidyanathan	295
	Contract of the Contract of th	WATER RESOURCES PLANNING	275
	Control of the Contro	Wanted: Fresh Ideas R R lyer	303
	Marian	COMMUNITY CONTROL OVER GROUNDWATER  Reconciling the Private Well with Community Tank K Palanisami and B Balasubramanian	305
		INTEGRATING BIODIVERSITY CONSERVATION  Biodiversity in Artificial Wetlands P Gole	313
	2000	Participatory Watershed Development: An Institutional Framework M Shah	319
	- In	REVIVING CUSTOMARY LAW  Enabling Law for Water Harvesting M S Vani	329
	100	DEVELOPING DECENTRALISED INSTITUTIONS  Towards a Legal Framework A M Bhattarai	333
	The same of the sa	GETTING CITY-DWELLERS TO DO IT	
		Facilitating Urban Water Harvesting S S Nair CREATING A MASS MOVEMENT	336
		Towards Community-based Rainwater Harvesting: Some Conceptual and Policy Issues HM Desarda	338
	The same of the sa	REORIENTING RESEARCH	
	11	Wanted: People-oriented Research A Singh ENSURING SAFETY	340
	-	Health and Rainwater Potability J Gould PERSPECTIVES	342
		Recognising the Inevitable P A Sangma, D Singh, M S Iyer,	247
		C Shukla, N C Saxena, R Gopalakrishnan, A Hazare, Dunglena and A Vaidyanathan	347
	DROUGHT OF	F <b>1999-2000</b> SETTING THE STAGE	
	105	Jolted into Action A Agarwal	361
	4	GUJARAT Emulating Civil Society E Prasad	363
	THE WAY	ANDHRA PRADESH	
	A OUT HAT	Miles to Go B Das MADHYA PRADESH	382
		Second Generation Mission R Mahapatra, B Das and K Dasgupta	397
	REFERENCES		415
	GLOSSARY		429
	INDEX		436
	STATEMENT O	OF SHARED CONCERN	448