

Report  
on visit to  
U.S.A., Italy  
and Yugoslavia

1957

Kanwar Sain



GOVERNMENT OF INDIA

Ministry of Irrigation & Power

Central Water & Power Commission

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## *foreword*

Great strides have been made in different parts of the world in the techniques of design and construction of river valley projects. A knowledge of these modern trends and practices can well be considered as a technical basis for economic development of our water resources.

Apart from receiving assistance and advice from many foreign countries in connection with water utilization projects, many of our engineers have visited other countries to acquaint themselves with the latest trends of developmental practices. It is not only necessary but essential for such engineers to disseminate their experiences and impressions for the benefit of other professional engineers in the field.

Shri Kanwar Sain, who has had opportunities to personally witness the engineering advances and to intimately discuss engineering problems with eminent engineers in almost all parts of the world, has already made an excellent and invaluable contribution in this field. In this volume, he vividly describes the projects visited by him in U.S.A., Italy and Yugoslavia in 1957, highlighting his most important observations. The important discussions and conclusions arrived at at the Third Congress of I. C. I. D. and World Power Conference are also brought out.

No doubt the information contained in this volume coupled with ideas of new techniques in engineering and allied aspects mentioned therein would be of great interest and value to our engineers in the execution of river valley projects. The conclusions and recommendations are of much significance.

All concerned with our country's efforts for economic exploitation of water potential and all engineers of the profession will be highly grateful to Shri Kanwar Sain for this very valuable service.

*H. Mohd. Ibrahim*

(Hafiz Mohd. Ibrahim)  
Minister of Irrigation & Power  
Government of India.

*With the advance of scientific and technological research and development, many new techniques and practices have come into vogue in design and construction of dams and other river valley schemes. In our endeavour to build up various development projects in the country, particularly water utilisation projects, it is obligatory to keep abreast of the latest developments and techniques to effect economic construction. It is, therefore, essential to compare and contrast the trends in engineering construction and development prevalent in our country with those of other countries. Visits to foreign countries and participation in International Conferences afford opportunities to get an insight into the latest techniques and also to discuss most important engineering problems with eminent engineers.*

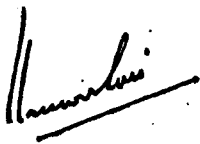
*During the last decade, I have had occasions to visit many countries of the world, and already reports on my visits to river valley projects in China, U. S. S. R. and some countries in Europe have been published for information of professional engineers.*

*Being in the habit of preserving diary notes of discussions and jotting down most important points and special features of projects visited — though hastily recorded for want of time — yet I feel it is my duty to record and disseminate these to the benefit of my fellow engineers.*

*During May and June, 1957, besides attending Third Congress of the International Commission on Irrigation and Drainage, some projects and engineering organisations in U.S.A. were visited. Later some visits were made in Italy by the kind courtesy of Electro-consult, before attending the World Power Conference in Yugoslavia which was further followed by tours to river valley projects in that country.*

*In this report, my impressions, both general and technical, have been recorded since it would be of considerable value to the members of the engineering profession who have not had the opportunity to visit these projects. Salient details and special features of the projects are also given together with the latest techniques in planning, design and construction. I would like to draw attention to the conclusions and recommendations made, which, I hope, will be of much interest in planning our future water utilisation projects.*

*I express my sincere thanks to the various engineers and administrators who spared no pains to take me round their projects, research laboratories and private engineering organizations. My special thanks are due to Shri J.S. Jain, Technical Attache to the Embassy of India, Washington, for his excellent forethought in preparing the ground for my visits and discussions in U.S.A., without which I could not have covered so much in such a short time. My thanks are also due to my Technical Secretary, Shri K. Krishnamurthy for his valuable assistance in the preparation of this report.*



(KANWAR SAIN)  
Chairman  
C.W. & P. Commission

# C O N T E N T S

	PAGES
● Foreword	iii
● Preface	v
<b>1 The tour</b>	<b>1-3</b>
<b>2 General impressions</b>	<b>4-6</b>
Resurrection after War ... ..	4
Rising Standards of Living ... ..	5
Key to Progress ... ..	5
<b>3 Third congress of international commission on irrigation and drainage</b>	<b>7-15</b>
The Third Congress ... ..	7
President's Message ... ..	7
Technical Problems ... ..	8
Findings of the World Congress ... ..	10
Flood Control in the Purview of I.C.I.D. ...	15
The Conference Concludes ... ..	15
<b>4 Inter-society conference on irrigation and drainage</b>	<b>16-19</b>
Can Man Develop a Permanent Irrigation Agriculture? ... ..	16
<b>5 Saving water in storage reservoirs and irrigation canals</b>	<b>20-32</b>
Necessity of Saving Water ... ..	20
Types of Losses ... ..	21
Evaporation in Reservoirs — Experiments in Australia; Experiments in India; Expe- rience in U.S.A.; What is Hexadecanol? ...	21
Absorption and Transmission Losses— Absorption Losses in India; Canal Lining in U.S.A.; Steps taken at Elephant Butte Reservoir in U.S.A. ... ..	27
Summing up ... ..	31

	PAGES
<b>6 Sprinkler irrigation</b>	<b>33-41</b>
Sprinkler Irrigation Round the World ... ..	33
Suitability of a Sprinkler System ... ..	35
Advantages ... ..	35
Disadvantages ... ..	36
Sprinkler Irrigation in India ... ..	39
One-Ditch System in U.S.A. ... ..	41
<b>7 United States of America</b>	<b>42-91</b>
Sacramento River Flood Control Project ... ..	42
The Sacramento River ... ..	42
Levees to Mitigate Flood Menace ... ..	42
A Flood Control Scheme Conceived ... ..	43
Federal-State-Local Undertaking ... ..	44
Sacramento-San Joaquin Delta ... ..	45
The California Water Plan ... ..	46
California's Need and Water Problems ... ..	47
How the Plan was Prepared ... ..	48
Brief Aspects of Study ... ..	50
Concepts of the California Water Plan ... ..	52
What the Plan Involves in Terms of Physical Accomplishments... ..	57
Costs ... ..	57
Summing up ... ..	58
Feather River Project ... ..	59
Shasta Dam ... ..	62
Trinity Earth Dam .. ..	63
Plan ... ..	63
The Trinity Dam ... ..	64
Discussions with U.S.B.R. ... ..	67
Testing of Embankment Materials ... ..	69
Summing up ... ..	69
Cheesman Masonry dam ... ..	70
Masonry Blocks Tests at Denver ... ..	71
Glen Canyon Dam ... ..	72
Description of Work ... ..	72
Rising Construction Costs ... ..	76
The St. Lawrence Seaway and Power Project ... ..	77
The Biggest Single Venture in the World ... ..	77
The River ... ..	77



	PAGES
Two Aspects of the Project ... ..	78
The Project Features ... ..	78
Navigation ... ..	78
Iroquois Dam ... ..	80
Long Sault Dam ... ..	81
Power Dam ... ..	83
General ... ..	89
<b>8 Italy</b>	<b>92-103</b>
I.S.M.E.S. — Experimental Institute for Models and Structures ... ..	92
Effect of Earthquakes on Dams ... ..	93
Visit to Dams ... ..	93
Geoveretto Dam ... ..	94
Bissina Dam ... ..	95
S. Valentino Dam ... ..	98
Arch Dams ... ..	98
General ... ..	100
Underground Power House of Ala ... ..	102
Engineering Enterprises ... ..	103
<b>9 Yugoslavia</b>	<b>104-113</b>
World Power Conference, ... ..	104
The Theme of the Conference ... ..	105
Perrica Dam ... ..	108
Grouting (clay cement) ... ..	109
Properties of Material ... ..	110
Earth Dams and Rockfill Dams Preferred ... ..	110
Private Enterprise in Yugoslavia ... ..	113
<b>10 Conclusions and recommendations</b>	<b>114-123</b>

### List of Appendices

<i>Appendix A</i> : Itinerary of the tour	124-125
<i>Appendix B</i> : Extracts from Kanwar Sain's paper on 'canal lining in India' presented at the third congress of I.C.I.D., San Francisco, May 1957	126-138

	PAGES
<i>Appendix C</i> : <b>Note on the proposal regarding the inclusion of the subject of flood problems and their control in the activities of the International commission on irrigation and drainage by Kanwar Sain, Vice-President, I.C.I.D.</b>	139-145
<b>References</b>	147

## LIST OF ILLUSTRATIONS

FIGURE No.	PAGE No.
1. Map of the World Showing Travel Route ...	<i>Facing</i> 2
2. Form of Raft for Dispensing Cetyl Alcohol in Small-sized Storage Reservoirs — Used by C.S.I.R.O. ...	23
3. Another Form of Raft ... ..	23
4. Plan Showing Type of Floating Rafts Used for Dispensing Cetyl Alcohol Solution at the Stephens Creek Reservoir ... ..	25
5. Bhakra Main Line Canal — Typical Cross-sections at R.D. 1,60,000 and 2,10,000 ... ..	<i>Facing</i> 29
6. Channel Rectification above Elephant Butte Reservoir — Mass Curves — Rio Grande Losses and Water Salvage ... ..	<i>Facing</i> 30
7. Sprinkler Spacing Tests at 30 lbs. per sq. in. — Relation Between Wind Velocity and Uniformity Coefficient ...	37
8. Sacramento River Flood Control Project — Levees, Overflow Area and Location of Structures	<i>Facing</i> 43
9. Sacramento — San Joaquin Delta Area — The Biomond Plan Features ... ..	<i>Facing</i> 45
10. Electric Power Plant on Mokelumne River ... ..	50
11. Tracy Pumping Plant — Capacity : 4,600 Cusec ; Lift : 196 ft. ... ..	51
12. Map Of California — Hydrographic Regions ; Ultimate Development and Transfer of Water Under the California Water Plan ... ..	<i>Facing</i> 52

	PAGE No
13. The California Water Plan "...for the Control, Development, Protection, Conservation, Distribution and Utilization of California's Water Resources" ... ..	53
14. Feather River Valley Project — Profile of Oroville Dam Looking Upstream...	<i>Facing</i> 60
15. Oroville Dam — Maximum Section ... ..	60
16. Oroville Dam — Section Through Power Plant ... ..	61
17. Trinity River Development — General Plan ... ..	65
18. Trinity Dam — General Plan and Sections ... ..	<i>Facing</i> 66
19. Trinity Dam — Section Through Spillway ... ..	68
20. Comparison of Mortar Strength to Masonry Strength ... ..	73
21. Mortar Strength vs. Rubble Masonry Strength ... ..	74
22. Glen Canyon Dam — General Plan ... ..	<i>Facing</i> 76
23. Glen Canyon Dam and Power Plant — Elevation and Sections ... ..	<i>Facing</i> 76
24. St. Lawrence Seaway and Power Project — Plan and Locations of Structures ... ..	<i>Facing</i> 78
25. St. Lawrence Seaway — Map and Profile ... ..	<i>Facing</i> 79
26. 'The Gentleman' — 15c. yd. dragline — digging the Long Sault Canal ... ..	80
27. Iroquois Dam — Downstream Elevation and Section ... ..	82
28. Long Sault Dam — Downstream Elevation and Section ... ..	<i>Facing</i> 83
29. A View of Typical Cellular Cofferdam ... ..	84
30. The Longest Cofferdam with the Canadian-American Power House Link ... ..	85
31. American Half of Power House work begins to rise from rock bottom ... ..	86
32. Power House begins to take shape — Canada work shown in background ... ..	86
33. Canadians use wood forms for draft tubes (above),	

	PAGE No.
while U.S. Preference (below) is for steel forms where they can be utilized four or more times ... ..	87
34. Section Through Power Unit (U.S.A.) ... ..	88
35. Section Through Power Unit (Canada) ... ..	90
36. Two Houses on the move to New Iroquois Town site. The larger house moving machine in the foreground is capable of lifting weight up to 4,00,000 lbs. ... ..	91
37. Concrete Model Testing of an Arch Dam in Progress (I.S.M.E.S.) ... ..	94
38. Construction Progresses at Bissina Dam ... ..	95
39. Bissina Dam — Section and Sectional Plan ... ..	96
40. S. Valentino Dam — Section ... ..	97
41. Lumei Dam — Perimetral Joint ... ..	99
42. Frera Arch Dam — Perimetral Joint ... ..	100
43. Frera Arch Dam — Downstream Elevation and Maximum Section ... ..	101
44. Control Gallery in Earth Dam ... ..	111
45. Typical Diaphragm Obtained by Timber Sheet Piling and Clay Groutings ... ..	112