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# COMMAND AREA DEVELOPMENT IN INDIA—WATER RESOURCE-BASED DEVELOPMENT OF IRRIGATED AREAS\*

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*With an analysis on the conceptual inputs required to underscore the multidisciplinary of CAD and a brief survey on evolution of its perception in India, the author focusses on discussing evolving of an ideal CAD organisation in India taking due cognizance of suggestions emerging from Planning Commission and other quarters in this regard objectives, activities, etc., and the achievements of CAD over a span of 25 years. Then, spelling out CAD needs, he stresses the need for an integrated organisation and farmers participation in CAD.*

THE COMMAND Area Development Approach was first thought of 25 years ago in 1972. It would be appropriate to look back and see how the concept/approach has evolved since then, starting with the reasons for the need of such an approach.

## MULTIDISCIPLINARITY OF CAD: COMBINING THE TECHNICAL AND INSTITUTIONAL ASPECTS

### *Perception of the Concept*

Today, there are many in Irrigation Departments throughout India for whom an irrigation scheme or project is one concerned basically with construction of dams and canals and their maintenance. In fact, for many of them even proper running of water in the canals and the functions of (to use terms used by Uphoff, Meinzen-Dick and St. Julien; and Coward,<sup>1</sup>) water acquisition, allocation, distribution (if necessary drainage) and conflict management and resource mobilisation are unnecessary botherations which they have to cope up with when they would much rather be dealing with the design, construction, and maintenance

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\*The ideas expressed in this article are personal and put forth for only academic purpose and can not be construed to be those of the organisation where the author works. This article is the by-product of a larger study on *Settler Motivation in Indira Gandhi Canal Project: A Study in Policy and Administration* being conducted by the author.

<sup>1</sup>N.R. Uphoff, Meinzen-Dick and N. St. Julien, *Improving Policies and Programmes for Farmers Organization and Participation*, Water Management Systems Project Paper 1, USA, Cornell University, 1985; and Jr. E.W. Coward, "Planning Technical and Social Change in Irrigated Areas", in M.M. Cernea (ed.), *Putting People First*, Oxford, Oxford University Press, 1991.

of structures or with maintenance of the physical system. Perhaps this is because Irrigation Departments in India are manned almost exclusively by engineers, who have not been brought up to study writers like Coward who states that "irrigation development requires successful joining of irrigation technology and appropriate institutions and organisations to govern that technology<sup>2</sup>". Since most present-day project commands already have settled populations, it is also now forgotten by many in India (and abroad) that irrigation projects also may need to concern themselves with settlement/colonisation in the early stages of their development.

However, even outside India, writers have had to caution against the tendency of many irrigation bureaucrats to consider irrigation schemes [according to Kellar this term includes watershed, and irrigation system(s) which deal(s) with the capture, delivery, application and removal of water from agriculture land, the people, information systems, and the necessary production, financial and institutional inputs all put together] as being limited in scope to aspects related to developing and managing irrigation systems.<sup>3</sup> As Lowdermilk has written, irrigation management is "the process by which water is manipulated (controlled) and used in the production of food and fibre... (It) is not water resources, dams or reservoirs to capture water; nor codes, laws or institutions to allocate water; nor farmers organisations, nor soils or cropping systems. It is, however, the way these skills and physical, biological, chemical and social resources are utilised for improved food and fibre production."<sup>4</sup>

Similarly Uphoff, Meinzen-Dick and St. Julien point out that "there are many ways in which an irrigation enterprise can fail. Engineering designs and technical operations need to be correct and efficient...if soils are not suitable for irrigation, productivity may be poor and decline. Factor and market prices have to be 'right'.... Physical and economic factors will not be productive unless the many activities associated with irrigation are integrated into an operational system. The human efforts that transform material relationships to make irrigation feasible establish a socio-technical process that is much more complex than the observable acquisition and distribution of water to the fields. Getting this larger process 'right' is essential."<sup>5</sup>

Wade and Seckler talk about the need to integrate physical and managerial design.<sup>6</sup> Wade also shows how any sharp distinction between technical and institutional aspects is bound to break down.<sup>7</sup>

<sup>2</sup>Jr. E.W. Coward (ed.), *Irrigation and Agricultural Development in Asia*, Cornell, Cornell University Press, 1980.

<sup>3</sup>J. Keller, *Irrigation Scheme Water Management, Water Management Synthesis*, Professional Papers, Utah State University, 1988.

<sup>4</sup>M.K. Lowdermilk, "Social Organizational Factors of Irrigation Systems" Diagnostic Analysis of Farm Irrigation Systems, Training Course in Water Management, *Annual*, 1981.

<sup>5</sup>Uphoff, Meinzen-Dick and St. Julien, *op.cit.*

<sup>6</sup>R.E. Wade and Seckler in R.K. Sampath and R.A. Young (eds.), *Social Economic and International Issues in Third World Irrigation Management*, Westview Press, 1990.

<sup>7</sup>*Ibid.*

In similar vein, Kellar has paraphrased Peterson (1984) to state that what is required is "multidisciplinary diagnosis, study, thought and action."<sup>8</sup>

Keller went on to suggest, in Sampath and Young, a more disciplinary frameworks leading to multi-disciplinary action, backed up by an interdisciplinary framework, leading to inter-disciplinary action.

### *Dimension of Coordinated, Integrated and Multidisciplinary Development*

Western countries do not have to worry about whether a sufficiently developed physical and economic infrastructure along with provision for amenities and services exists as a given part of the environment within which an irrigation scheme can function, with the irrigation scheme itself forming the external environment for an irrigation system. Hence, for irrigation schemes, such as those in India, we have to think beyond the watershed, water supply and agricultural domains of Kellar<sup>9</sup> in an irrigation scheme and also consider the dependency of the irrigation scheme on the larger human and natural eco-systems. Thus, irrigation schemes cannot be considered separately from area development schemes but, in fact, need to be considered instead as multi-disciplinary, integrated and interdependent area development schemes based on irrigation and involving occupational changes, fresh settlement or resettlement of populations, infrastructural development, agriculture, irrigation, individual beneficiary schemes and coordinated and integrated functioning of various sectoral programmes in the area.

It is to ensure coordinated, integrated and multidisciplinary planning and implementation of irrigation schemes that India's National Water Policy of 1987 had advocated that all irrigation projects should adopt the Command Area Development (CAD) Approach. A CAD approach can be said to be one based on multidisciplinary, interdependent and integrated area development based on irrigation and water management. The Ninth Five Year Plan Working Group defines the broad-based objective of CAD to improve water-use efficiency by way of increasing agriculture production and/or by reducing water expense through efficient management of various production factors, such as land, water, other inputs, crops, credit, etc. Such measures include increasing cropping intensities, adopting high-yielding varieties, ensuring adequate irrigation in space and time, adequate fertiliser use, plant protection measures, minimising application losses of water through On Farm Development (OFD), and cultivation of climatically efficient crops of varying water requirement in a combination which is affordable in terms of availability of water supply and attainment of optimal crop production.

### **CAD Concept in India: Historical Perspective.**

#### *Evolution of the Concept*

The Irrigation Commission (1972) suggested constitution of special administrative units for coordinated and expeditious development of command

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<sup>8</sup>Keller, *op.cit.*

<sup>9</sup>*Ibid.*

areas of major and medium irrigation projects. A Ministers Committee of Government of India (1972-73) had similar views. This led to a new programme of CAD for which Government of India issued circular letters in August and September 1973 for setting up of CAD Authorities under Area Development Commissioners to take measures for optimum utilisation of irrigation potential and for stepping up agriculture production through coordinated, multidisciplinary efforts. Sivamohan and Scott have rightly pointed out that India's CAD concept is unique; aiming to integrate a very wide range of developmental, sectoral and functional components and sub-components through articulation of a comprehensive strategy of development which includes disparate fields previously (and even now by many) thought to be unrelated to irrigated agriculture.<sup>10</sup> Their analysis of the reasons why CAD was initiated based on concern for the gap in utilisation of already created irrigated potential, a change in the concept of irrigated agriculture, recognition of the need for infrastructure development below the outlet level, and concerns for distributive justice, is unexceptionable and the very brief summary of the subsequent shifts in CAD policy quite perceptive.

*Incomplete View of CAD Experience and Need for a Unified Set-up*

However, by only listing the components recommended by the National Commission on Agriculture and the 14 activities originally envisaged in 1973<sup>11</sup>—not including Government of India's amended list of September 1976, or the objectives of CAD recommended by Administrative Staff College of India (ASCI)<sup>12</sup> in a study conducted for the Government, or the functions for CAD Authorities suggested by the Task Force (1990), or the discussions by the 1983 Task Force, the 1987 Indian Institute of Management Study, the 1988 National Workshop, and the Working Group on preparing Eighth Plan proposals for CAD (1990)—and only mentioning the 1981 High Level Committee in a different context in a footnote, they have not managed to explain the rationale of all the changes, or the interplay of different forces and different experiences of the CAD approach being tried out in Indian irrigation. Thus, at least to the mind of this commentator (who has been at the helm of affairs in large CAD Projects and has tried to keep himself abreast of governmental thinking and mid-course corrections in the CAD programme, both due to his academic interest and compulsions of his responsibilities as he has been Secretary to Government of Rajasthan for Command Area Development and Water Utilisation since January 1994), they ended up conveying an incomplete impression to the reader of the mosaic of different CAD experiences in the country.

It is not true (as suggested by Sivamohan and Scott)<sup>13</sup> that CAD merely became a part of either the Agriculture or the Irrigation Department in every Indian state,

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<sup>10</sup>Sivamohan and Scott, *op.cit.*

<sup>11</sup>*Ibid.*, p.15.

<sup>12</sup>Administrative Staff College of India (ASCI), *Comprehensive Study of Organization and Monitoring and Multi-Level Coordination Problems of CAD Authorities*, Hyderabad, 1979.

<sup>13</sup>Sivamohan and Scott, *op.cit.*

thus neglecting one or the other aspects. Some states did set up integrated and separate organisations with officers from concerned departments being seconded to the CAD set-up. Though now only one or two states retain such integrated organisations and the Ninth Five Year Plan Working Group on CAD has again had to emphasise the need for a unified administrative set-up for CAD Projects. Nevertheless, it is correct that tensions between people from different departments exist and attempts at integration face major difficulty and that no workable solution has so far been found for unsatisfactory main system operations or for lack of success of farmers organisations. Also, the change in emphasis from "full package". The OFD (for discussion on full package of OFD see Hooja)<sup>14</sup> to concentrate on construction of field channels and *warabandi* (rotational water supply) did occur. But, the comprehensive area development approach, with focus on increased agricultural production and investment aimed at rural prosperity, was never abandoned by the government, and the conclusions of Sivamohan and Scott that the policy thrust developed in the earlier years has been more or less lost in all the states is perhaps partially true only for some states.

#### EVOLVING AN IDEAL CAD ORGANISATION

In this article, I have undertaken to supplement the analysis already available in *ODI Irrigation Management Network Paper 20*, with my views about the objectives of CAD and the activities which should be implemented directly by a CAD project. I will also make some comments about the ideal CAD organisation. As a first step, I will attempt a summary of the approach set forth in the Government of India, Eighth Five Year Plan Working Group on CAD,<sup>15</sup> in the Task Force 1990, and in the Ninth Plan Working Group for CAD<sup>16</sup>. These embody the latest government pronouncements about the CAD Programme in India.

The Eight Plan Working Group indicates that (building on the Seventh Plan's thrusts on Integrated Water Management, OFD works and Agriculture Inputs Supply) the core CAD items should be to ensure reliability of irrigation water supply through unified control and adoption of management approach and intensification of software components, such as adaptive trials and demonstrations, farmers' participation and training, staff training, conduct of crop cutting and farm management studies, and communication. The future thrust of the programme is to be towards better water management. There is a need to consider the entire distribution system from headworks to farm gate as one management unit to ensure that irrigation water releases follow a pre-determined plan and any deviation from planned and publicised releases should be identified and corrective action taken.

<sup>14</sup>R. Hooja, "Development of Catchments in Chambal Rajasthan Projects" in M. Mukherjee (ed.), *Administrative Innovations in Rajasthan*, Associated, 1982; reprinted in R. Hooja, *Administrative Interventions in Rural Development*, Jaipur, Rawat, 1987.

<sup>15</sup>Ministry of Water Resources, India, *Report on Working Group in Command Area Development for Formulation of Plan Proposals for Eighth Five Year Plan 1990-95*, 1996.

<sup>16</sup>India, *Report of Working Group on Command Area Development Programme*, New Delhi, Ministry of Water Resources, 1996.

Wireless communication systems would be a major requirement for effective operation of the distribution system.

Involvement of farmers in irrigation management, though it has begun, should be converted into a mass movement of farmers for their effective participation below the minor outlet level and, to this end, voluntary agencies may be involved in action research projects.

Surface and ground water resources have been considered so far more in isolation than in conjunction. This has often resulted in inadequacy and unreliability of water during the period of peak demand, on the one hand, and water-logging and related problems of salinity, on the other. CAD projects should, therefore, plan conjunctive use to ensure that water distribution is so regulated that farmers are induced to switch over to cropping patterns more consistent with the soil characteristics of the land on which the crops are grown and a balance is struck between the draft from ground water and the recharge of ground water from surface sources.

### *Changes Suggested by Planning Commission*

The Eighth Five Year Plan Working Group had also suggested changes in the existing pattern of central financing as described by Sivamohan and Scott<sup>17</sup> in such a manner that field channels are constructed on grant basis from the Central and state governments without any liability on the farmers; 100 per cent Central assistance is provided for *warabandi* in case the same is implemented through an organised farmers' association; assistance is extended for field drains on the same pattern as for field channels; and the establishment of a monitoring cell at project level through 100 per cent Central assistance has been proposed.

In April 1996, the Government of India slightly modified its financing pattern for matching grants and loans to the states. For field drains, Central assistance was brought at par with that of field channels (50% of cost from canal outlet to channel). Arrangement subsidy for Farmers Associations, which get registered and take over distribution of water in a canal, get a one-time functional grant of Rs.500 per hectare to be shared between Government of India, State Government and Farmers Association in the ratio of 9:9:2 has been provided for. Cost of reclamation of irrigated water-logged areas up to a maximum of Rs.12,000 per hectare would be shared on a 50:50 basis between Central and State Governments.

Even though the Ninth Plan Working Group (1996) recommendations succeeded the 1990 Task Force recommendations, we are summarising these here in continuation to those of the Eighth Plan. There should be a unified administrative set-up for CAD Authorities (CADAs) which should have complete technical and administrative control over officers from various departments deputed to it. The CADA should also have unified command from headworks down to last level in field and up to the last outfall of drainage network. Participatory Irrigation Management should necessarily be promoted as part of CAD. Enhanced subsidy should be given for development of ground water and conjunctive water use be encouraged. In addition to major and medium projects, minor irrigation projects

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<sup>17</sup>Sivamohan and Scott, *op.cit.*, p.17.

(500 ha. to 2000 ha.) should also be included under Centrally sponsored CAD. Emphasis on sprinkler and drip should be given to economise on use of water. Adaptive trials and demonstrations on farmers fields and training of functionaries, farmers and NGOs, as well as monitoring and evaluation by a multidisciplinary team, should receive 100 per cent Central Grant. A 100 per cent Grant to be shared on 80:20 basis by Centre and States should be provided for: (i) Survey, Planning and Construction of OFD, (ii) Construction of field channels, (iii) construction of field, and collector, drains (collector drains were not covered earlier under Central assistance for CAD), (iv) reclamation and survey of water-logged areas, (v) rehabilitation of minor/distributories linked to Participatory Irrigation Management, (vi) enforcement of *warabandi*, (vii) partial subsidy to small and marginal farmers and SC/ST against loan's being taken by them, (viii) crop compensation, (ix) establishment costs of work items, and (x) one-time functional grant to water-users associations.

The Working Group has also suggested setting up of State Level Advisory Councils for CAD activities.

The shortcomings and constraints which the Ninth Five Year Plan Working Group hopes CAD would enable the country to overcome are: (i) lack of reliability of water supply at the canal outlet due to inadequate maintenance of irrigation system, (ii) difficulty in obtaining land for field channels due to lack of consolidation of holdings, and lack of proper alignment of field channels in the absence of consolidation, (iii) existence of unlined field channels which can easily be ploughed over leading to conflicts, (iv) lack of coordination between CAD and Irrigation Departments, (v) lack of *warabandi*, (vi) lack of maintenance of field channels and field drains and drainage system below field channels, (vii) absence of collector and intermediate drains, (viii) problem of waterlogging, soil salinity and alkalinity, (ix) lack of Extension Service support, (x) lack of attention to development of wireless communication and farm roads, (xi) lack of coordination among different departments at State level concerned with CAD, (xii) lack of farmers participation, (xiii) lack of marketing infrastructure, (xiv) lack of On Farm Water Management, and (xv) lack of proper Crop Management.

#### *Performance Indicators of CAD and Recommendations of National Workshop*

Accordingly, the Ninth Plan Working Group has suggested the following performance indicators for the CAD Programme: (a) equitable distribution of water, (b) Production and productivity enhancement, (c) water supply augmentation to command additional areas, (d) demand-based average water availability, (e) sustainability of resource base, (f) adequate and balanced level of input use, (g) adoption of appropriate technology, and (h) optimising water use efficiency per of unit of land and per unit of water.

The Ninth Plan Working Group report is still to be processed and implemented. The 1990 Task Force,<sup>18</sup> however, has already had an impact on Government of India's policies regarding CAD.

<sup>18</sup>India, *Report of Task Force on Organizational Models for CAD Programme*, New Delhi, Ministry of Water Resources, 1970.

Since the Task force 1990 was set up as a result of a National Workshop on CAD held in February 1988, the recommendations of that workshop are being reproduced in part below:

It is recognised that removal of uncertainty in irrigation water supply is the key element in meeting the basic objective, of the Programme. Reliability of supply in most cases is impeded by:

- Lack of unified control of water management from headworks to farm gate;
- System inadequacies, such as lack of control structure, measuring devices and absence of distribution system within an outlet command;
- Inadequate preventive and operation maintenance of water distribution system; and
- Lack of farmers' participation in irrigation management.
  1. The Workshop recommends that removal of uncertainty in the supply of irrigation water be treated as the core element in the CAD programme.
  2. The Workshop feels that there should be unified control of irrigation water management and recommends that management of irrigation system right from headwork to farm gate should rest with CADA.
  3. Keeping in view the crucial importance of modernisation and maintenance, the Workshop recommends that adequate funds be mobilised for modernisation to correct system inadequacies and for meeting maintenance requirements.
  4. Participation of farmers in irrigation management is more widely recognised than practised. With active participation of beneficiaries, effectiveness of the programme would improve and maintenance of the irrigation at micro level be better achieved. The Workshop recommends intensification of efforts to secure participation of irrigators in the CAD programme.
  5. The Workshop recommends closer interaction of agriculture research and extension services with CADA to ensure adoption of suitable cropping pattern and better crop water management practices.
  6. Promotion of conjunctive use of surface and ground water not only enhances water availability but also leads to avoidance of deleterious effects, such as water-logging and salinity, or excessive fall in the water table noticed when development of surface water or ground water projects are taken up in isolation. The Workshop recommends that in keeping with the National Water Policy, conjunctive use of water be made an integral part of all projects.
  7. To alleviate, if not eliminate, problems of water-logging and salinity, the Workshop recommends that drainage works be given high priority in the existing projects and should form an integral part of all-new projects.
  8. The workshop recommends that lining of channels be taken up only to the extent needed, based on soil characteristics and cost effectiveness.

9. Land levelling is capital intensive and expensive to implement if benefits are marginal. When technical considerations require land shaping, the Workshop recommends that project authorities should involve specialists of high calibre in drawing up plans and ensure that such works are taken up only where benefits substantially exceed the costs.
10. Constraints on achievements of Programme objective are project specific. The Workshop recommends that projectwise identification of bottlenecks and formulation and implementation of action plans should be given due recognition.
11. Since CAD Programme and CAD Authorities are widely known and states have evolved arrangements for administration of the Programme best suited to their local conditions, the Workshop does not consider it necessary to rename the Programme or suggest allocation of the Programme to any particular administrative department at the state level.
12. The Workshop recognises the need for management oriented multidisciplinary teams working at the CAD project level to ensure efficient discharge of the core function of providing reliable water supply at the farm gate, and such other functions that may be assigned to CADA's to fulfil the basic objective of improving utilisation of irrigation potential and increasing productivity in irrigated agriculture.
13. The Workshop recommends setting up of a Task Force to suggest a suitable indicative organisational model for CADA having due regard to economy.
14. There is need for improvement in the quality of personnel and their training, particularly at the level of CAD workers; farmers' training is also equally important. The Workshop recommends that training programmes be reviewed; facilities in Water and Land Management Institutes (WALMIs) be strengthened and intensively utilised for this purpose.
15. Irrigation water rates, in most cases, do not cover even maintenance charges and do not convey the scarcity value of water. Water charges are often substantially higher in the case of ground water, thereby rendering conjunctive use less attractive to the farmer. Water rates for surface water and ground water need to be rationalised and should be adequate to cover the annual maintenance and operation charges as also a part of the fixed cost. It should be the endeavour to reach this ideal over a period of time while ensuring, assured and timely supplies of irrigation water.

#### *Task Force View on Functions of CADA*

The Task Force 1990 reminds us that "when the CAD programme was initiated in 1973-74, the main objective was to increase agriculture production in irrigated areas. Agricultural productivity was sought to be maximised by bridging the gap

between creation of irrigation potential and its utilisation together with efficient management of irrigation water, soil and various inputs, provision of extension and credit facilities, scientific crop planning etc... However, this has not happened primarily due to organisational deficiencies." The report goes on to state, "this task force feels that the concept of CAD Programme is a very well conceived one and it is as relevant today as it was at the time of its introduction. The primary objective of the Programme can, therefore, be said to be the optimisation of production in irrigated agriculture through a multi-disciplinary, integrated and well coordinated approach to development of the Command Area."

The functions of CADA recommended by the Task Force 1990 also include construction and maintenance of main and link drains, modernisation of the main and distribution irrigation system, developing solutions for the ill effects of irrigation on the environment, and the marketing and processing of agricultural produce and establishment of agro-based industries.

Demand based water supply, based on dynamic regulation for diversified cropping to provide water at critical stages of each crop (as mentioned in *ODI Irrigation Management Network Paper 20*) is being talked of in the Irrigation Departments in recent years. But this approach has not yet found a mention in official CAD policy documents; though one suspects, it would soon become a major concern of CAD.

The September 1992 Irrigation Ministers' Conference also mooted the idea of Command Area Management to supplement CAD, thus reemphasising that CAD should not focus merely on engineering construction activities but also on management resources.

The *Planning Commission Approach Paper for the Ninth Five Year Plan*, recently approved, has also stressed the need to continue the Centrally sponsored CAD Programme.

### *Objectives of CAD*

As regards the objectives of CAD, enlarging on Kathpalia Hooja, Hooja, Hooja, ORG and Jayaraman<sup>19</sup> we can list the following as appropriate:

1. Full utilisation of created irrigation potential (potential can be deemed to have been created when delivery system up to 5-8 hectare level is in place).
2. Increased productivity per unit of water and per-unit of land.

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<sup>19</sup>G.N. Kathpalia, "Command Area Development Programme in India— Progress and Future", *Wamana*, Vol. 4, No.3, 1989; R. Hooja, Command Area Development—Development of Governmental Thinking About its Objectives and Components", in P.C. Mathur and R.K. Gurjar (ed.), *Land and Water Management in Arid Ecology*, Jaipur, Rawat, 1991; and R. Hooja, "CAD Approach to Water Management Driven Development—Reflections on DDA Irrigation Management Network Paper No.20", *ODI Irrigation Management Newsletter*, 1993; and *Multidisciplinary Management of Irrigation Schemes and the Command Area Development Approach in India*, HCM-RIPA Occasional Paper No.2, 1995; Operations Research Group (ORG), *Evaluation of CAD Programme in IGNP—Approach Paper*; (mimeo), 1991; and T.K. Jayaraman, M.K. Lowdermilk and W. Clyma, *Command Area Development Authorities for Improved Water Management*, Synthesis Report No.8, Colorado State University and Utah State University, 1982.

3. Provision of predictable water supply to all farmers.
4. Efficient use of water with equitable distribution at minimum administrative cost.
5. Evolving appropriate cropping pattern and persuading farmers to follow them.
6. Conservation of soil and water resources.
7. Planned and regulated development of the command area and its inhabitants in harmony with the land and its agro-climatic conditions.
8. Settler motivation in case of virgin area being brought under irrigated cultivation for the first time, and resettlement assistance, in case population is being displaced.
9. Attainment of cost effectiveness and productive returns on investments of the farmers.
10. Protection of the developed command area to avoid environmental damage and loss of valuable command area due to water logging, salinity, erosion, gully formation, pest infestation, canal siltation, etc.
11. Providing the organisational means and incentives for effective and constructive farmers participation in system operation and maintenance.
12. Balancing industrial, domestic, livestock, drinking water and irrigation demands for water.
13. Smoothen transformation of labourers, rainfed farmers or pastoralists into irrigated cultivators with improved living standards.
14. Providing basic infrastructure, improved amenities and services, and increased employment opportunities.
15. Creating coordinated and well integrated government delivery system for the command area.
16. Adopting a holistic project approach for each irrigation project.

#### *Activities to be Performed in a CAD Project*

As regards the activities which should be performed by a CADA, a list originally prepared for Hooja<sup>20</sup> based on Pande<sup>21</sup> and Sarupria<sup>(22)</sup> which was subsequently modified for Hooja<sup>23</sup> and Hooja<sup>24</sup> is being further refined as follows:

- A. Watershed Management above the headworks and management of the headworks.

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<sup>20</sup>R. Hooja, "Rural Credit in CAD Areas: OFD and SFDA Loaning", *The Administrator*, Vol. 27, No.1, 1982, reprinted in *Symposium on Winter School on Integrated Agriculture Development in the Command Areas of Irrigation Projects* INSA, 1983, also reprinted in R. Hooja, *Administrative Interventions in Rural Development*, Jaipur, Rawat, 1987.

<sup>21</sup>V. Pande, "Planning and Implementation of Command Area Development", paper presented in Command Area Development Training Seminar for Chambal Project Personnel, Jaipur, HCM-RIPA, 1976.

<sup>22</sup>S. Sarupria, "Irrigation Agriculture—A Regional Planning Approach to Command Area Development", *Asia Economic Review*, Vol.19, No.4, 1977.

<sup>23</sup>R. Hooja, "Command Area Development—Development of Governmental Thinking about its Objectives and Components" in P.C. Mathur and T.K. Gurjar (eds.), *op.cit.*

<sup>24</sup>Hooja, 1997, *op.cit.*

**B. Improvement of existing Irrigation System (including minors and sub-minors).**

1. Lining, desilting and deweeding of canals (and redesigning canal systems, if necessary), including deferred maintenance or rehabilitation of canals where necessary.
2. Construction and operation of control structures.
3. Rationalisation of outlets.
4. Proper maintenance.
5. Canal capacity works and canal modernisation as well as constructing intermediate storage for better water regulation.
6. Enforcing water discipline and *warabandi* (rostered rotational water supply).
7. Stabilisation of canal banks through: (a) planning, and (b) engineering works.
8. Rotational running of canals and *warabandi* within the outlet chak.
9. Maintaining full supply levels of canals for reliable, timely and adequate supply of water.
10. Conjunctive use of ground, surface and drainage water for irrigation.
11. Wireless communication for better canal management.
12. Weed control and prevention of canal siltation.
13. Control of unauthorised use of water.

**C. Drainage Works**

1. Construction of main drains, carrier (or linkage or intermediate) drains and seepage (or interceptor) drains, skimming wells etc.
2. Maintenance of the above.

**D. Flood Control Measures**

**E. On Farm Development (OFD)**

1. Farm drainage works.
2. Watercourse construction works, including re-alignment of water courses, where necessary.
3. Farm road works.
4. Realignment of field boundaries and updating of land records and land revenue maps.
5. Lining of water courses.
6. Land levelling and land shaping.
7. Individual wells for supplemental irrigation.
8. Protection of marginal lands and already developed OFD lands through soil conservation and afforestation techniques for gully and ravine control.
9. Reclamation of saline and alkaline lands.
10. Suitable treatment of unirrigated or non-command patches that fall within the larger command area.
11. Monitoring of water table.

## F. Agricultural Activities

1. Intensive Agriculture Extension system which also undertakes irrigation extension.
2. Adaptive and adoptive research to feed the extension system.
3. Provision of and/or monitoring of supplies of inputs, including water and services and tie-up of the extension system with co-operatives and canal water distribution.
4. Propagation of better on-farm water application and cultivation techniques and diffusion of innovations.
5. Popularising water users associations and Participatory Irrigation Management.
6. Conduct of soil and hydrogeological surveys.
7. Conduct of Farm Management surveys, crop cutting experiments, etc.
8. Farmers training.
9. Evolving and promoting optimal cropping patterns.
10. Recording agro-meterological data to determine crop water requirements.

## G. Macro Development of Command Areas

1. Land allotment and motivation of new settlers or resettlement of displaced persons.
2. Roads for opening up the command area for irrigated agriculture.
3. Market yards and storage facilities.
4. Processing Industries.
5. Forestry, pastures and horticulture.
6. Development of human settlements in virgin areas being brought under irrigation, including town and country planning, provision of schools/dispensaries, etc.
7. Development of both milch and drought animals.
8. Containment of water-borne human and animal diseases.
9. Acquaculture.
10. Development of rural artisans and rural industries.
11. Special programmes for the rural poor, like IRD of Government of India.
12. Land reforms and consolidation of holdings, if necessary.
13. Afforestation to keep soil from blowing into canals.
14. Provision of drinking water in newly settled areas.
15. Settling pastoralists for pasture development and livestock breeding on lands not fit for crop husbandry.
16. Planning studies to decide future priorities.

## H. Institutions

1. Integrated managerial control of the system, the area, and of irrigation engineers, agriculture engineers, (land) revenue staff, agriculture

extension and research set-up, cooperative structure, Public Works Department (PWD) and Ground Water Department (GWD) staff, afforestation staff, Agriculture Produce Marketing Committees, dairy and animal husbandry staff, and district level functionaries of various government departments, who are placed under the supervision, control and/or coordination of the Project Administrator or Area Development Commissioner.

2. Coordinating with special credit institutions for providing: (a) short-term credit for agriculture inputs, (b) Term credit for OFD and related works, and (c) IRD credit for small and marginal farmers, agricultural labourers, rural artisans and other rural poor.
3. Coordination with peoples representatives, panchayats and farmers outlet committees.
4. Systematic implementation.
5. Concurrent evaluation and monitoring for self-assessment and mid-course corrections.

### *Physical Achievements of CAD*

From its inception to 1994, 14.8 million hectare was included under CAD Project of which 11.4 million hectare irrigation potential has been utilised (*i.e.*, 77% utilisation). Field channels have been constructed in 13.5 million hectare, field drains in 0.7 million hectare, land levelling done in 2.1 million hectare and *warabandi* enforced in 8.2 million hectare up to March 1995. However, as already indicated above, these achievements are not very relevant performance indicators from the point of view of assessing the impact of CAD Programme.

### NEEDS OF CAD

#### *An Integrated Organisational Structure*

Now to turn to the question of appropriate organisational structure. The ASCI study<sup>25</sup>, Singh<sup>26</sup> and the Task Force<sup>27</sup> 1990 have all commented favourably on the CADA set-up in the Indira Gandhi Canal Project (IGCP; formerly Rajasthan Canal) as incorporating all the objectives of CAD laid down by the Central Government with all relevant functions under the direct control of the CAD authority and linkages established with CADA through the budgetary process. Here (Hooja, Hooja and Kaudia),<sup>28</sup> the Area Development Commissioner (ADC) has been delegated powers of Chief Engineer (Irrigation); Chief Engineer. (Ground Water); Chief Engineer, IGCP; Director of Agriculture; Registrar of Cooperative Societies;

<sup>25</sup> ASCI, *op.cit.*, Vol. 1, p.18.

<sup>26</sup> K.K. Singh, "Alternative Organizational Strategies for Command Area Development" in A.O. Elman, 1978.

<sup>27</sup> India, Task Force, 1990, *op.cit.*, p.18.

<sup>28</sup> R. Hooja, "Intermediate Level Planning—The Case of a CAD Project", *The Administrator*, Vol. 36, No.3., 1991; and R. Hooja and R.S. Kavdia (eds.), *Planning for Sustainability in Irrigation—Command Area Development and the Indira Gandhi Canal Project*, 1994.

Chief Town Planner; Director of Animal Husbandry; Director, Sheep and Wool; and Divisional Commissioner, has been authorised to coordinate the work of the Colonisation Commissioner as well as of the District Collector.

The Area Development Commissioner directly administers operation, maintenance and regulation of Canals, Left-over Canal Construction works, construction of water courses, agriculture extension, farmers training, adaptive research and trials in CAD run farms, and on farmers fields, water application trials, settler motivation, monitoring of roads, drinking water arrangements, conduct of planning studies, including hydrogeological barrier studies, afforestation, anti-water-logging and drainage, and certain aspects of animal husbandry, sheep and wool, and cooperatives development works and two World Food Programme Projects—one for settlers and the other for labourers, and for infrastructure development. Thus, the state government is funding some activities in addition to those funded by the Central Government as part of CAD.

The Area Development Commissioner also coordinates work relating to land allotment and colonisation, *mandi* towns development, agricultural marketing and some aspects of canal construction. Each state government seconds, or deposes, its staff to the CAD set-up where they work directly under the ADC as part of one organisation. Thus, the CAD set-up corresponds to what Jayaraman<sup>29</sup> had called a new concept in rural development strategy where instead of separate departments, each having its own autonomy, the new strategy is to create an administrative unit, based on natural resource activity, that cuts across the usual administrative boundaries.

Rajasthan, like a few other states, also has a separate state level CAD department headed by a full-time Secretary.

However, while such an integrated CAD set-up has helped in smoother implementation, it has certainly not been plain sailing. The Irrigation Department and the Indira Gandhi Canal Board (responsible for canal construction) have often wanted to take away functions assigned to the CADA. The Forest Department has resisted its officers and staff being placed under the ADC and afforestation works being done by the CADA. The Colonisation Department would prefer to go its own way rather than having to coordinate its land allotment and land possession, giving work with that of canal construction or with CAD; and the placing of the Colonisation Commissioner fully under ADC has been resisted.

A similar integrated set-up of CAD-IGNP also exists in CAD-Chambal Rajasthan project, though one CAD project in Rajasthan-Mahi does not have a unified set-up. Recently, for Sidhmukh-Nauhar also, the government has opted for a unified and integrated CAD set-up.

Even within CAD, staff of various wings tend to look at the work of their own wing as a separate water-tight compartment, if not viewing other wings like separate department, with whom they tend to have traditional departmental rivalries, or on whom they can try to pass on blame for non-achievement of the impact of the CAD project as a whole. Trying to get the staff to take a holistic or comprehensive

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<sup>29</sup>T.K. Jayaraman *et.al.*, *op.cit.*

overview of issues proves difficult and the comments of Jayaraman<sup>30</sup> for non-integrated CADAs that “much of the CADA commissioner’s time is wasted because of the ... time consuming procedures needed to attain coordination... often the personal appeals of the Commissioner to all units and his very senior status are the only means for achieving coordination” is partially applicable even for Rajasthan’s integrated CADA set-up. The IDS study<sup>31</sup> has also indirectly referred to this problem when they mentioned the frequent recourse to meetings by the ADC, the Additional Area Development Commissioner and the heads of various wings of CAD.

Sarupria had noted in the context of one Indian State which does not have an integrated CAD organisation that irrigation and agriculture staff attach little significance to the CAD approach “the atmosphere being one of total indifference if not outright hostility. In particular, irrigation officials, especially at the project level, were emphatic in their view that irrigation management was a techno-legal problem and only the Irrigation Department officials, mostly engineers were competent to handle it”. Wade’s<sup>32</sup> observation that “the Irrigation Department is powerful, wealthy and accustomed to going its own way, and on the whole has been slow to sympathise with CAD ideas” is still relevant. Dandeker<sup>33</sup> has bemoaned the defective planning and execution of irrigation projects in India and attributed it to the fact that planning of irrigation projects is mostly done by State Irrigation Departments which still continue to be the monopoly of civil engineers and, therefore, the inputs from other disciplines, such as agronomy, agro-economy, social sciences, etc., is not up to the desired level.

However, the longer an integrated CAD set-up remains in existence, the lesser the likelihood of such intra-discipline tensions and of excessive display of loyalty towards the parent department continuing, as instead, the CAD approach gets entrenched in tradition. (At least Kathpalia’s recommendation that the CAD department be dispensed with and irrigation and the agriculture departments strengthened and that a coordinating committee be set up, does not appear to be valid to this commentator.) As noted above, the Ninth Plan Working Group has emphasised the need for integrated organisational set-up.

### *Farmers Participation*

More disturbing is the failure of even the best CAD organisations to evoke much farmers participation except in some rare instances. Partly this may be because as Chambers said “to a remarkable degree, many writers on irrigation ignore and even appear to be unaware of the relationship between people and

<sup>30</sup>T.K. Jayaraman *et al.*, *op.cit.*

<sup>31</sup>Institute of Development Studies, *Report of the Monitoring and Evaluation System of Rajasthan CAD and Settlement Project*, Jaipur, 1996.

<sup>32</sup>R.E. Wade, “Water to the Fields: India’s Changing Strategy” *South Asian Review*, Vol.8, No.4, 1975.

<sup>33</sup>M.M. Dandeker, “Some Aspects of Irrigation Water Management in Development Countries” in J. Singh, M.S. Acharya and A. Sharma (eds.), *Water Management—Problems and Prospects in Command Areas*, Himanshu, 1990.

irrigation water. Attention is usually fixed on hydrological, engineering, agricultural and economic aspects. Especially in official documents, it is rare to find described, let alone analysed, the human side of the organisation and operation of irrigation systems, the management of those who manage water, the procedures of allocation of water to groups or individuals, and the distribution of water within groups. There may be almost as many instances of these omissions as there are reports on irrigation."<sup>34</sup> (To Chambers list, we may add that analysis of farmers likely behaviour in varying circumstances also fails to find place in reports regarding CAD and irrigation). Hence, efforts to involve farmers in water management are like groping in the dark due to insufficient knowledge and understanding.

Sivamohan and Scott<sup>35</sup> are correct in their assertion that water shortages (and also in this writer's view, uncertainty about supply of water) due to main system operation lead to conflict, "erosion of communal ethics" and break down of farmers associations. Here, the argument repeatedly being set forth by Freeman<sup>36</sup> and Freeman and Lowdermilk (in Cernea 1991—the earlier version is the 1985 edition)<sup>37</sup> that main irrigation system requirements, knowledge, attitudes and environment differ drastically from those existing at the farm or outlet level and accordingly that a middle-level agency is required to function as an interface between the central irrigation system and the farmer/water user appears sound. In fact, even if participation of farmers' organisation was not an immediate objective, a middle level organisation whose short-term goals, working, and administrative style, would differ both from those of the central main line agency and from those of the farmers within the outlet command (what we call the Chak committee) is likely to prove effective. Perhaps initially, this middle level wing could be a governmental organisation within CAD, which would also continue to perform the main line central agency tasks through a separate wing of CAD, and gradually the middle level organisation could become a farmers' organisation which would then interact better with a grassroots farmers association. Such organisational reform has not yet been fully integrated into India's CAD approach even though Participatory Irrigation Management (PIM) is now vigorously being advocated for CAD projects both by Government of India and by State Governments.

In fact, since 1995 the Government of India has organised two national PIM Conferences and has sponsored through the CAD Programme 14 Regional PIM Workshops, over 60 Project level PIM Workshops, and countless PIM training programmes. It has also, as already mentioned, provided for one-time grants to

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<sup>34</sup>R. Chambers, "Men and Water: The Organisation and Operation of Irrigation" in B.H. Farmer (ed.), *Technology of Change in Rice Growing Areas of Tamil Nadu and Sri Lanka*, Westview Press, 1977.

<sup>35</sup>Sivamohan and Scott, *op.cit.*

<sup>36</sup>D.M. Freeman, "Designing the Organisational Interface Between Users and Agencies" in B.W. Parlin and M.W. Lusk (eds.), *Farmer Participation and Irrigation Organisation*, Westview Press, 1991.

<sup>37</sup>D.M. Freeman and M.K. Lowdermilk, "Middle Level Farmer Organisations As Links Between Farms and Central Irrigation Systems" in M.M. Cernea (ed.), *Putting People First*, Oxford, Oxford University Press, 1991.

water-users associations for PIM and has sponsored PIM action research projects through NGOs and is acting as a clearing house for information on PIM.<sup>38</sup>

Nonetheless, we should not forget that farmers' organisation is not a panacea for all problems and that the costs involved may not always be worth it (Parlin and Lusk,<sup>39</sup> as participation may be a very good solution or remedy for only some problems, and that there is a need to achieve a fit between irrigation organisations and the technology in both type and scale for achieving improved water management.

#### CONCLUSION

However, despite the differences from state to state in the extent to which the CAD approach is applied, and to which the CAD organisation is integrated into a unified and comprehensive set-up, the fact that the CAD approach exists (one that envisages interdisciplinary effort and unified career structure for integrated and comprehensive area development based on water management using the skills, orientation and methodologies of all relevant disciplines), along with its emphasis on the need for PIM itself provides hope for the future of water management in India.

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<sup>38</sup>L.K. Joshi, *Management of Irrigation: A New Paradigm—Participatory Irrigation Management*, New Delhi, Ministry of Water Resources, Government of India, 1979.

<sup>39</sup>B.W. Parlin and M.W. Lusk "International Irrigation Development—Factors Affecting Project Success", in *Society and Natural Resources*, Vol.1, No.2., 1980.

## **PROMOTING WATER-USERS ASSOCIATIONS FOR PARTICIPATORY IRRIGATION MANAGEMENT — SOME REFLECTIONS**

**RAKESH HOOJA**

*The author discusses Participatory Irrigation Management, the most recent and widely accepted organisational innovation, holding great promise through improved water management and better irrigation system management. Drawing elaborately on his personal experience in Command Area Development in a water-deficit State like Rajasthan, he delineates on the strategy and approach that could possibly be adopted with advantage for setting up and promoting Water-Users Associations. The author, in his bid to be comprehensive, gives a complete package in this regard for the benefit of readers and those interested in setting up and running similar bodies elsewhere.*

### INTRODUCTION

PARTICIPATORY IRRIGATION Management (PIM) is now being recommended world over as a solution for many problems of designing and operating irrigation systems in a sustainable manner. India's National Water Policy of 1987 had also recommended such efforts based on creation of associations of water-users. However, it is only with the organisation of a National Conference on PIM by the Government of India in June 1995 that a real impetus has been given to this work throughout the country. Before that, we only had some isolated cases of water-users bodies associating with irrigation bureaucracy in the management of irrigation schemes. During 1995-96, 16 regional conferences on PIM were organised throughout the country and a large-scale training programme was also sponsored by the Ministry of Water Resources. Pilot projects have been initiated at many places, including Rajasthan, and much thinking is being generated about legal, technical, organisational and viability related issues which may influence the success or failure of joint irrigation management efforts whereby water-users bodies and the irrigation (or Command Area Development—CAD) bureaucracy may come together into partnerships of various sorts for managing irrigation schemes.

In the above-said context, this author proposes to set forth his personal views (based on experience of managing CAD schemes, perusal of relevant literature

regarding PIM in India and abroad, and attending some workshops, seminars and conferences) on how to propagate Water-Users Associations (WUAs), and makes them successful in the context of one Indian state, *i.e.*, Rajasthan. It is felt that the suggestions being set forth here would be applicable throughout India and may also perhaps have relevance for much of the developing world.

However, as a word of caution, it may be added that while farmers' participation in irrigation management may help solve many problems, it is not a panacea for *all* the difficulties that may be encountered in managing irrigation schemes. Many issues would have purely technical solutions. Many others would be such as may require governmental action, either directly within the irrigation system management or in the form of influencing the broader environment within which the irrigation system is functioning. However, successful implementation of PIM in India would go a long way towards improved water management and better irrigation system management with all the resultant benefits.

#### PROMOTING WUAs FOR PIM—AN APPROACH

### *Functions of WUA*

#### *Identification of Functions*

There should be no uniform prescription of what tasks a WUA should perform. Each WUA should be free to evolve its own idea of the tasks that it may want to perform through a process of learning from its experience as it experiments with the various responsibilities that it may decide to take upon itself. WUAs or Farmers' Water Management Committees accordingly take up some or all from amongst the following functions:

1. Water distribution, rotational canal running and *Warabandi*—ensuring that water reaches all members as per their due share;
2. Operation and maintenance, and collection (and assessment) of water charges and other special charges that WUAs may levy;
3. Resolution of local disputes amongst members—if necessary setting up of an internal system of penalties and other disincentives or incentives;
4. Agriculture extension and farmers training;
5. Management of inputs and credit supply to members;
6. Irrigation extension and propagation of better on-farm water application and better intra-outlet command water management;
7. Recommending of cropping patterns suitable for WUA farmers;
8. Encouraging and taking up of conjunctive water use, or community lift irrigation, and charging for the same if done on a community basis;
9. Drainage;
10. Provision of drinking water from canals;
11. Soil testing/water quality testing;
12. Post harvest practices (grading, packaging, storage, and marketing);

13. Design and construction of new works (irrigation works, OFD works, drainage works) as well as rehabilitation or deferred maintenance works;
14. Maintenance of commercial, financial and water accounting records; and
15. Any other task as agreed upon by the members.

#### *Flexibility According to the Nature of a WUA*

Of course, every WUA would perforce be performing the function of providing an interface between the farmers and the government agencies.

In fact, the nature of a particular WUA would depend not only upon the manner in which it gets initiated and the quality of the prime movers behind the formation of the WUA, but also on many other factors.

One such factor could be whether the WUA is being set up in a system which is managed by an integrated, multidisciplinary CAD organisation or whether the WUA would have to separately interact with the irrigation department, the agriculture department, the ground water department, the rural development agency, the land revenue administration and other government departments and agencies working in the command area of the irrigation system.

Another factor could be whether or not the *Warabandi* system and a *Warabandi* culture already exists in the irrigation project. The example of Chambal-Rajasthan CAD Project informs us that the achievements can be much more dramatic when a WUA comes up in an area lacking in a tradition of *Warabandi* in that in the Arnetha WUA the water saving was substantial (a reduction of 32 days of watering from 79 days to 47 days) as was the increase in area cultivated (an increase of 145 acre from 660 acre to 805 acre). However, in an area where *Warabandi* already exists, the initial impact may not be so dramatic. However, even in such areas, scope exists for better water management which could lead to more optimal returns for individual members of the WUA as also for the WUA as a whole, based on more equitable and dependable water supplies.

Similarly, a WUA set up before construction starts (the WUA can comment on the need for modification in the designs and oversee the construction and then continue with other tasks), would behave in a very different manner from a WUA set up after construction (which would be more concerned with operation, maintenance and sustainability of the operations).

Of course, a WUA functioning only below the canal outlet level would operate very differently from the one operating above the outlet level, or from the one trying to deal with issues both above and below the outlet through either a system of subcommittees for each WUA created for each outlet command, or a system of a federation of WUAs below the outlet coming together to deal with common issues relating to a minor or a branch canal.

#### *Flexibility According to the Form of WUA*

The flexibility that should be allowed to a WUA to determine its own functions should also be extended to the form of organisation that a WUA wants to create or adopt for itself. There are those who feel that a WUA needs to be a legal entity from its very inception. Hence, one comes across advocates of the WUA registering as

either a cooperative society, or as a registered society under the Registration of Societies Act or as a company. Others suggest that the CAD Department or the Irrigation Department should formulate its own separate rules for registration of WUAs. On the other hand, many prospective members of WUAs seem to prefer setting up of an informal group, a step also recommended by many irrigation and rural development administrators, experts, and NGOs. The problem of registration as a cooperative, or as a registered society or as a company is that the concerned registering body is not attuned to the problems of irrigation and water management. Hence, the bye-laws for such registration and the system of related inspections may eventually end up hindering the WUA rather than helping it to perform its tasks. Further, by registering a WUA at the onset, the members would restrict or limit the scope of the WUA from evolving, growing, taking up new functions and new organisational structures. It may be appropriate to suggest that prospective members first set up an informal group and later on register it with either Registrar of Cooperatives or Registrar of Societies or Registrar of Companies or with the concerned authority of the Irrigation Department or CAD Department as the case may be. One alternative could also be to permit the cooperative officer in the CAD project or any other designated officer of the CAD or irrigation or Agriculture Department to be authorised to register WUAs as cooperative societies. However (whether an informal group or a body registered somewhere), the WUA should be recognised by the CAD Department or by the Irrigation Department (as the case may be) for purposes of receiving water from the project/department. For this, a Memorandum of Understanding (MOU) (specifically designed for each WUA with ample scope for flexibility and change, based on experience of working the MOU) between the CAD or Irrigation Department and the WUA should form part of the recognition provided to the WUA. If the MOU is not with an integrated CAD Department, then a MOU with the Irrigation Department and supplementary MOUs with the Agriculture and Ground Water, etc., Department, may also need to be signed.

Since the WUA would need to have some rights to receive a certain supply of water, the WUA should invariably be based on a hydrologically based area unit (outlet command, minor canal command) and should have at least 60 per cent of the area of the command and 60 per cent of the farmers represented on it with the right of all other farmers in the command to join the WUA remaining inalienable. The WUA could, of course, differentiate between members and non-members as regards charging of fees and provision of services and benefits. However, all members and non-members would have a right to receive their share of the water, with non-members being charged a slightly higher rate since they would not be contributing to the WUAs management.

A mechanism for arbitration of disputes, if any, between the government department officials and the WUA would also need to be evolved. Here also, if it is an integrated CAD Project, the differences would need resolving between only one government agency, that is the CAD Project and the WUA. For non-integrated projects, the government side to the dispute could be the irrigation or agriculture or land revenue, etc., departments, or a combination of some or all of them and the arbitration mechanism would need to be much more complex.

### *Canal Management and Other Functions*

As WUAs take over many functions of management of canals, the government CAD Department or the Irrigation Department (as the case may be) would have to gear itself to look more to construction and management of dams and the main canal system (perhaps even to construction of minor canals and to OFD and drainage works), providing technical advice, training, introduction of new technologies, major repairs (if required), creation of an organisation for interfacing between the WUA and the government and for motivating or catalysing formulation of WUAs, etc. Here, again, while for an integrated CAD Project various functional wings of the CAD organisation could be geared and coordinated for bringing about PIM, for unintegrated projects a number of departments would have to be reoriented to deal with PIM. (It may be added that in Rajasthan, CAD Projects have integrated organisations consisting of Irrigation, Agriculture, Extension, Agriculture Research, On-farm Development, Ground Water, Cooperatives, Drinking Water, Afforestation, Roads, Settlers' Motivation, Drainage, Planning and Monitoring, and related wings, all working under a single project organisation which reports to a separate CAD and Water Utilisation Department at State Government level.)

The WUAs would need to be permitted to fix and levy water charges which are not lower than the government fixed water rates as also to fix other service and user charges for the WUA to levy.

Based on the performance of WUAs as regards all members (and non-members) receiving their due shares of water even at the tail of the canal, or of canals being maintained up to a particular minimum standard previously agreed upon between WUA and government or (where the WUA also undertakes recovery of irrigation charges) upon the percentage of recoveries made, some proportion of the receipts to government of irrigation charges should be returned to the WUA for the tasks to be taken up by it.

Many WUAs would function with the government continuing to manage, operate and maintain the canals. However, some WUAs would be willing to take over a particular canal(s). In such cases, either the government would have to bring the canal up to a particular standard before it is turned over to the WUA (conducting deferred maintenance and rehabilitation or modernisation of the canal, reduction or removal of oversized and unauthorised outlets, re-determining of canal capacity, fixing of tail gauges and measuring devices, as well as proper outlets, *i.e.*, APMs, etc.) or government would have to suggest to the WUA and agree with it as to what sort of improvement would have to be undertaken by the WUA and, *in lieu* of such improvement to be taken up by the WUA, the government would have to agree to make available to the WUA its share of the irrigation charges for a certain number of years. Government would also have to make available irrigation, agriculture and ground water, etc., related technical advice, and also perhaps some machinery, etc., to the WUAs if the WUA undertakes the canal rehabilitation and modernisation work. Major repairs would still have to continue as a government responsibility, though minor repairs would be the responsibility of the WUA and if the government undertakes the same, then government should receive payment from the WUA for the work.

As regards deferred maintenance and rehabilitation/modernisation of canals, some pilot projects should be taken up where such rehabilitation precedes formation of the WUA but is taken up where farmers agree to form a WUA upon rehabilitation. Some other pilot projects would be taken up with WUAs being set up first and rehabilitation being subsequently considered, designed and undertaken by WUA and government jointly. Such pilots would need to be taken up in both integrated CAD projects and in non-integrated projects, as the resultant experiences may differ.

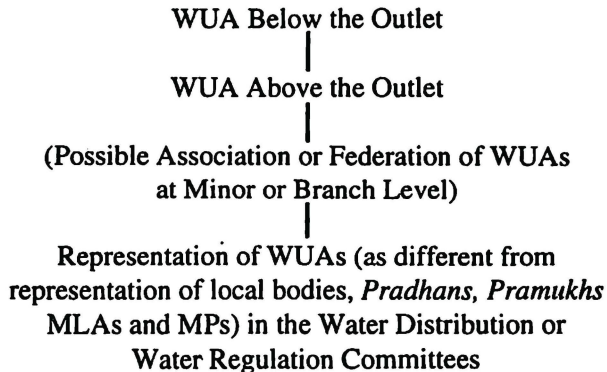
#### MEETING WUA NEEDS—ROLE OF GOVERNMENT

The post turn-over role of the government *vis-a-vis* the WUA needs to be spelt out in quite some detail.

##### *Role of Local Body*

Experience also seems to show that the local (Panchayat) body and the WUA cannot be one and the same. The local body has many other non-irrigation related functions, and its boundaries also are not coterminous with the command areas of either a water course or a canal. Hence, local leaders have concerns and priorities that differ from (or may even come in conflict with) those of the WUA. Also, the interaction between members of WUAs needs to be more frequent and intense than the interaction of the local populace with a local panchayat body.

Hence, a desirable system of WUAs would be as follows:



##### *Role of CADA*

For CAD Projects, in the Command Area Development Authority (CADA), in addition to representation of officers representing different secretariat-administrative departments and the executive-field departments and project officers, and Collectors, MPs, MLAs, *Pradhans*, *Pramukhs*, and nominated farmers, some representatives of the WUAs in the command area should also be made members. However, this would serve the purpose only for integrated CAD projects. For non-integrated irrigation schemes, perhaps a multidepartmental, multidisciplinary coordination committee would need to be created for each irrigation scheme, or for a group of irrigation schemes in an area, and along with officers and some panchayat non-officials, representation of

WUAs would need to be provided for in the multidisciplinary coordination committee.

*Coordination of PIM Activities at State Level*

At the State Government level, it would be desirable to have a PIM cell created at the Secretariat level in the Command Area and Water Utilisation Department. Two or three multidisciplinary PIM teams should also be created in the CAD and WU Department which could be sent from project to project to motivate and facilitate the WUAs and to act as catalysts for PIM. These teams could be used to visit and service not only CAD Projects but also non-CAD Projects. For CAD Projects, the PIM cell in the CAD and WU Department would be the coordinating and nodal point for all PIM related activities. However, for the non-CAD Projects, the Irrigation, Agriculture and Ground Water Departments would also need to create an officer-in-charge for PIM in their executive departments to facilitate and propagate PIM. The PIM Cell of CAD Department and the PIM incharges in other departments could also interact with NGOs, experts, and retired officials regarding further steps to be taken to further PIM. The multidisciplinary PIM teams of CAD Department and the officer-in-charge of PIM in each other concerned department would have to work at creating local interface mechanisms between government and the WUA or the farmers in the Command area. NGOs could also prove helpful in this work. The CAD and WU Department should also coordinate PIM related training throughout the State.

A standing high-level Group for PIM has already been set up at the State Government level in many States, including Rajasthan, to ensure interdepartmental coordination.

SUMMING UP

Going by the experience of Chak Committees in CAD, IGNP and Catchment Committees in CAD-Chambal Rajasthan, it is also felt that there should *not* be any effort to create a large number of WUAs in a short time, nor try to hurriedly cover an entire project by WUAs. Thus, numerical targets for creation of WUAs should *not* be fixed. This would only lead to creation of associations on paper rather than that of effective WUAs. Instead, the effort should be to propagate PIM and to let effective WUAs emerge at their own speed, in their own style, with their own objectives and tasks as well as their own organisations. The effort should be that initially some pilot WUAs emerge in the integrated CAD Projects and similarly some pilot WUAs come into being in the non-CAD Projects. The experience with them would enable the government to reorient its working in such a manner that genuine irrigation agency-farmer partnerships in irrigation management may emerge.

Similarly, going by past experience, the effort should be to try and discourage formal elections within the WUAs but to try and have consensus based selection of WUA leaders to perform management functions. This may help to control emergence of factionalism amongst the members of the WUA and, thus contribute to greater sustainability.

Similarly, it has to be recognised that financial and infrastructural support may enable WUAs to be initially created, but unless major social, institutional and HRD support is made available, sustainability would not be achievable. PIM must not be looked upon as a means to help canal or CAD officers in performing their duties, but as a measure to evolve a sustaining joint management partnership. It should be based not on departmentally or functionally segmented efforts and strategies, but upon a holistic, comprehensive and integrated multidisciplinary approach and strategy aimed at optimal use of precious water resources in the State.

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## ADMINISTERING WATER IN INDIA IN 2050 AD\*

**RAKESH HOOJA**

*With brief reference to water becoming a commodity of critical importance in the next 50 years, the author spells out future needs of management of water resources in India. Visualising fuller people's participation to transform it into a joint endeavour, he spells out supportive structural arrangements to promote greater interaction and coordination between different concerned agencies and Users Associations, newer role of Irrigation Departments, requisite technical as well as social organisational skills of functionaries, etc.*

THE TYPE of administrative and institutional arrangements required for managing water in 2050 would naturally depend upon society's changing needs for water and the then available technologies for proper utilisation of water.

### INTRODUCTION

#### *Importance of Water in Future*

It is clear that increased populations would lead to increased food and fibre needs as well as increased pressure on, and competition for, water for varying uses and for varying regions. Assessments made in Indian Water Resources Society (IWRS)<sup>1</sup> reports indicate that by 2025 AD total annual fresh water requirement of India would be 1050 billion cu. m. This would be almost at par with our currently estimated exploitable water resources of 1122 billion cu.m. By then the average national per capita water availability would have shrunk from today's 2200 cu. m. to 1500 cu. m. Most of the sources (surface and groundwater) of water would already have been developed and

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\* This article has evolved out of inputs that the author in his capacity of Executive Member of Indian Water Resources Society (IWRS) was asked to provide for "The IWRS Theme Paper on Water: Vision 2050" being prepared for Water Resources Day in March 1999. Earlier versions of the article have been circulated to some individuals and institutions.

<sup>1</sup>IWRS, "Theme paper on Five Decades of Water Resources Development in India", Indian Water Resource Society, New Delhi, 1998.

issues of inter-basin transfers of water (if at all possible as per the efforts of the National Commission for Integrated Water Resources Development Plan) settled by 2050 AD. However, much of the water-related infrastructure developed during 20th Century would require major renovation and modernisation or significant maintenance and repair. Conservation, recycling and optimal use of water, (as also assuring water quality and checking water-borne diseases and problems of water pollution would be major issues requiring technical, administrative and social solutions. (Thus, for example, 'Command Area Management'—which would encompass a balance between development and management—would have become much more important than today). With increasing competition for water for different needs and different regions and lower per capita availability, the nature of water as public (or social) good would have assumed greater importance than its characteristic as an economic good.

#### *People's Participation*

Hence, community (or participatory) management and public or governmental management would be more relevant rather than leaving things to the market. But individual users of water in the domestic and drinking water, health and sanitation, irrigation and agriculture, industry and commerce, energy, transportation, leisure and recreation, etc., sectors would continue to have a major impact on how water resources are utilised, as also the individual scientists working on technologies for water availability to be enhanced or for water to be used more efficiently.

### MANAGEMENT OF WATER RESOURCE—FUTURE NEEDS

#### *Water Planning and Coordination Mechanism*

The legal, political and institutional arrangements required for managing the water resources would have to reflect the above-mentioned concerns. As disputes and conflicts over water increase—even the Ministries of Home and Defence may have to concern themselves more with water-related issues since water riots or conflicts over water may increase. Perhaps the Inter State Council will have to set-up a committee on inter-regional water issues. Alternatively, the National Water Resources Council, which has met thrice between 1983 and 1998, may have to be made more active as would the National Water Board. Region based international forums like say a South Asian Regional Cooperation on Water may also have become very vital to sort out cross-border water issues. Clearly, much greater intersectoral coordination than is being achieved at present would be required. On the other hand, since water affects all aspects of human life, it would not be possible to integrate all water use related aspects into a single Ministry, either at the Centre or in the States. The present Standing Committee for Assessment of Water for diverse uses in the country may not be able to meet all the requirements. Hence, a permanent Water Planning and Coordination Mechanism (WPCM) would need to be set up both at the Centre and in the States. This would require: (a) an inter-

ministerial group, (b) an advisory support group or sub-group consisting of experts, (c) a small permanent secretariat of inter-disciplinary specialists and generalist planners, and (d) a standing tribunal also comprising inter-disciplinary experts, and generalist planners and administrators to which disputes between various alternative uses of water and between various regions for water use, or regarding issues of environment and soil water quality versus developmental and service provision needs of water could be referred. The WPCM should be a part of the Ministry of Water Resources at the Government of India level, which naturally would continue to be government's nodal point for all issues related to water use. Perhaps the mandate and the name of the National Water Resource Development Agency could be changed and it could also be made a part of the WPCM. At the State Government level, such a mechanism would be attached to the State Irrigation Department with a strong link with the Command Area Development (CAD) and Water Utilisation Department (in those states where the CAD Department is separate from Irrigation Department).

*Interaction between Government and Agencies Representing Different Water Sectors and Water Users Associations*

River Basin Development Agencies, Command Area Development and Management Agencies for irrigated areas, and Watershed Management Agencies for rainfed areas (with an administrative structure which improves upon the present integrated CAD project organisations in CAD-IGNP and CAD Chambal in Rajasthan) would need to be set up to interact with the Central and State Governments on the one hand and with water-users groups, cutting across all sectors, on the other. Such water-users groups could be area based [canal minor or branch Water Users Association (WUAs), catchment committees, Chak committees, irrigation project level federation of WUA's watershed committees, etc.] or function based (industrywise users groups or committees of residents in towns and villages). Some such user groups would have come together into federations working for better resource management, while others would be existing only at the grassroot level.

*Comprehensive National Water Data Bank*

A national data bank on water having links with Central, state and local level governments as also with river basin, Command Area Development, and watershed agencies and WUA's would need to be fully functional long before 2050 AD.

*Transforming Water Management into Joint Endeavour*

The State Government Irrigation Departments would need to reorient themselves to meet the changed, and changing needs of water utilisation, and water management would have to be seen as a joint endeavour or joint partnership of the government and the water users. Such joint partnerships would hopefully involve greater user organisation/institution role in terms of representation, operation and management responsibility and ownership of

water and water storage, distribution and utilisation structures,<sup>2</sup> while the governmental irrigation agency would be more involved in regulation and shared management providing an enabling environment for the user groups to manage the water themselves. In addition to the interfacing mechanisms necessary for such partnership to be successful, the department would need to set up sector-by-sector coordination committees with various other user departments in government. The major interaction would still perhaps require to be between the States Irrigation, Agriculture and Ground Water Departments as well as the CAD and Water Utilisation Department and the district administration in view of the food and fibre needs which would have to be got met through canal and well irrigated, and rainfed farming, as well as with the Public Health Engineering Department, since drinking water and domestic water needs would have increased drastically as even today many irrigation water sources are being diverted from irrigation to drinking and domestic water use. Inter-departmental/inter-sectoral disputes and those between user groups and government agencies would need to be settled expeditiously, fairly and transparently and devices to ensure this would have to be evolved over the years making use of available social capital to ensure efficient water management and utilisation. Many traditional, but unrecorded uses of irrigation canal waters by housewives, livestock breeders and the local landless may also have to be considered, when water is diverted for more profitable or vital purposes.

#### *Constitution of Support Groups of Inter-disciplinary Experts in Diverse Fields*

The State Irrigation Department would perhaps need to constitute Advisory Support Groups of inter-disciplinary experts and generalist planners in fields like: (a) alternative and multiple water uses, including water allocation; (b) participatory irrigation management; (c) waterlogging, salinity and flood control; and (d) Command Area Management and Development (encompassing integrated land-water management, the linking of management of surface and sub-surface water resources, and consideration of both water quality and quantity in planning), (e) water conservation and recycling of water, (f) water and preservation of social and physical environment, (g) extension and technology dissemination regarding water use in irrigation and other sectors (with special reference to improved on-field water application techniques), (h) renovation and re-development (including technological upgradation or modernisation) of existing water resource projects, etc. Such Advisory Support Groups would also need to be got created in Ministry of Water Resources, Government of India and in Central Water Commission.

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<sup>2</sup>Ruth Meinzen-Dick, Meyra S. Mendoza, Loic Sadolet, Ghada Abiad-Shields and Ashok Subramanian, "Sustainable Water User Associations: Lessons From a Literature Review," in Ashok Subramanian, N. Vijay Jagannathan and Ruth Meinzen-Dick (eds.), *User Organisations for Sustainable Water Services*, World Bank Technical Paper, Washington D.C., 1997.

*Newer Roles for Irrigation Departments*

While the specific form and role that irrigation departments would have to play 50 years hence cannot be predicted since the pace of societal change has become such that it is difficult to predict about specific half-a-century hence—however Svendsen, Trava and Johnsons's views about new roles that irrigation agencies would need to play may prove a useful guide.<sup>3</sup> They emphasise river-basin planning, water resource allocation and monitoring, development of new policies and regulations, environment monitoring and enforcement, groundwater monitoring and control, project design and construction technology transfer to user associations, advisory services to user associations, monitoring performance of user associations, and arbitrating disputes. As regards encouraging Participatory Irrigation Management and WUAs in addition to providing advisory services and technology transfer to WUAs, government would have to create the enabling environment through policy resolutions, legal and administrative framework, intellectual, academic and administrative leadership, mass awareness and promotional efforts, financial and technical incentives, training and orientation, etc.<sup>4</sup>

*Objectives of CAD*

I also suspect that the objectives of CAD agencies as envisioned by me would in some form or the other continue to be valid even in 2050 AD. These objectives (slightly modified from those which I visualised in 1995)<sup>5</sup> are: (i) full utilisation of irrigation potential, (ii) increased productivity per unit of water and per unit of land, (iii) provision of predictable water supply to user, (iv) efficient use of water with equitable distribution at minimum administrative cost, (v) evolving appropriate cropping patterns to suit agro-economic conditions, available technologies and physical and social infrastructure, (vi) conservation of soil and water resources. (vii) planned and regulated development of command area and its inhabitants in harmony with land, water and agro-climatic conditions, (viii) attainment of cost effectiveness and productive returns on investments for the users, (ix) protection of the developed command area to avoid environmental damage and loss of valuable command land due to water logging, salinity, erosion, gully formation, pest infestation, canal siltation, etc., and integrating drainage into a multi-disciplinary and integrated water management strategy of preventive and

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<sup>3</sup>M. Svendsen, J. Trava and Sam Johnson III, "Participatory Irrigation Management: Benefits and Second Generation Problems—Lesson From an International Workshop--The conference was held at CIAT Cali, Columbia, February 1997.

<sup>4</sup>Rakesh Hooja, "Propagating Participatory Irrigation Management," *Prashasika*, Vol. 24, No. 2, 1997; and "Promoting Water Users Association in Participatory Irrigation Management Scheme: Some Reflections," *Indian Journal of Public Administration*, Vol. 43, No.4, 1997; and "A Strategy for Propagating Participatory Irrigation Management in India," Paper presented at Fourth National Conference on Participatory Irrigation Management, Hyderabad, January, 1999.

<sup>5</sup>Rakesh Hooja, "Multidisciplinary Management of Irrigation Schemes and the Command Area Approach in India", *Occasional Paper No.2*, Jaipur, H.C.M. Rajasthan Institute of Public Administration, 1995.

curative measures to check waterlogging and salinity, (x) providing organisational means and incentives for effective and constructive user participation in management, including operation and maintenance, (xi) balancing industrial (including energy generation), domestic, livestock, drinking water and irrigation demands for water, (xii) providing basic infrastructure, improved amenities, and services, and increased employment opportunities within the command area, (xiii) integrated land and water management, and surface and sub-surface water management, through adoption of a holistic project approach for each irrigation and command area project, and (xiv) creating a coordinated and well-integrated government delivery system for the command area with appropriate emphasis on both development and management.

While details may change, many of the above mentioned concerns should remain valid even 50 years hence. Some examples of the type of changes may be that just as today water needs to be specially provided for irrigation, with increased pressure on water even the quantities and types (quality based) of water to be made available for silvi-pastoral efforts on marginal lands for livestock husbandry may have become as important a concern of irrigation departments as providing of water for crop husbandry and for drinking purposes to the farmers who live on their fields. In addition to technically ensuring that water can physically become available to all individual user, accessibility of water to individuals in terms of social, economic and legal entitlements would also become much more important as time passes and pressure of water increases. Thus, as Hufschmidt<sup>6</sup> has suggested, the policy overlaps between the water resources domain and those related to agriculture, health, human settlements, forestry, energy, transport and environment would continue to grow within the context of changing land-water-ecosystem-human activity system interactions.

#### *Required Skills of Professionals*

Hence, the water professional or irrigation engineer/officer of 2050 AD would need to possess inter-disciplinary knowledge and skills as follows:

1. *Technical Skills in Irrigation Engineering* (including Civil Engineering and Water Resources Engineering), Hydrology, Agronomy, Horticulture, Agriculture Engineering, Hydrogeology and Groundwater Management, On-Farm Water Application Techniques and Integrated Water Management, Drainage, On-Farm Development, Environmental Protection, Land Use Geography, Soil Science, Natural Resource Management, Data Management, Action Research in Agriculture, Action Research in Irrigation, Land Water Surveys and GIS based Surveys, and Integrated Land-Water Planning.

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<sup>6</sup>See A.K. Biswas, Mohammed Jellali and Glen Stout (eds.), *Water for Sustainable Development in the 21<sup>st</sup> Century*—especially papers by Mohammed T.El-Ashry and Maynard M. Hufschmidt, New Delhi, Oxford University Press, 1993.

2. *Social Organisational Skills* in Irrigation Sociology, Rural Development, Professional Management, Agricultural Economics, Water Law, Cultural Anthropology, Local Administration and Politics, Human Geography, Social Psychology, Agricultural Extension, Irrigation Extension, Decentralised Planning, Project Planning, Community Organisation and Group Dynamics, Conflict Management, Organisational Capacity Building, Administrative Planning, Interdisciplinary Planning and Coordination, Rapid Rural Appraisal and Participatory Rural Appraisal, Area ( or Spatial) Planning and Economic Geography, Public Administration, Development Economics, Development Studies and Agrarian Change, Participatory Management, Multidisciplinary Diagnostic Surveys, Studies and Evaluations. For this, the teaching and research institutes and training bodies like WALMIs and IMTIs would also need to be reoriented.<sup>7</sup>

### *Integration of Management of Water in its Different Sectors*

Just as in last 20-30 years, the need for integrated management of surface and groundwater and for multiple water from the same source has assumed importance, similarly the future would necessitate integration of ocean water management with water management on land.

As regards funding, the present schemes like NABARDs Rural Infrastructure Development Fund (RIDF) or the Central Government Accelerated Irrigation Benefit Programme (AIBP) would need to be replaced by private and public arrangements for funding for creation and maintenance of water-related assets. Similarly, funding for research and development would become much more vital as the pressure on water increases. Such R&D would not be restricted only to scientific and technological issues since the success of each water-related project would depend upon the various contexts (agro-ecological, technical and technological, economic, historical, institutional, socio-cultural and politico-legal) within which the project operates and, thus, research and trials (including adoptive research) touching on all these aspects would be necessary to ensure optimum utilisation (including recycling and multiple use) of water in society. Research would need to focus not only upon better water use and management, but also upon non-conventional technologies for water availability expansion.

### *Variable Water Pricing*

Variable pricing of water for variable uses to ensure its efficient use would also have become a crucial (with techno-engineering, politico-administrative and socio-economic implications) by 2050 AD; which would necessitate administrative and legal arrangements being worked out to enable the same.

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<sup>7</sup>Clarence Maloney and K.V. Raju, *Managing Irrigation Together—Practice and Policy in India*, New Delhi, Sage; 1994; also see B.N. Nawalwala, "Water Resources Development and Water Conservation Strategy in India," in Rakesh Hooja, R.C. Bower and S.N. Mundra (eds.), *Irrigation Agriculture and Social Development*, Udaipur, Himanshu, 1997.

Water laws would have to undergo major changes not only to accommodate increased user participation in management, but also pressures of various alternative uses of water and the overall demand for water as our vision about life and importance of water and related water rights undergo changes over the next 50 years. However, keeping in view the fact that the pace of change has speeded up in all sectors of life, the laws would have to be kept flexible to keep pace with technological changes. Flexible approaches would also be necessary to accommodate physical and socio-cultural differences between regions in each state and between various agro-climate regions in the country.

#### SUMMING UP

Thus, the administration, funding and laws related to water are likely to see much more changes in the next 50 years than those which have occurred in the last 50 years, as society is forced to respond to newer challenges.

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# REVISITING PARTICIPATORY IRRIGATION MANAGEMENT IN INDIA

**RAKESH HOOJA**

*In this article, the author sets forth views on an India-specific strategy for propagating Participatory Irrigation Management (PIM) based on his experiences, studies, reading and understanding. The discussion on the type of approach to PIM that needs to be followed and the efforts required to be undertaken to ensure the acceptance, adoption and spread of PIM in India. It also includes a scheme of what should form part of state-level legislations on PIM in India. The strategy and approach being advocated is one which would make water users develop a sense of ownership in WUAs and to develop deep involvement in their working, rather than merely being members of WUAs due to legislative fiat or governmental orders. Before concluding this article he analyses the views of some of those with experience of implementing or analysing the PIM efforts in India and abroad, and who are interested in the success of PIM in reforming Indian irrigation.*

## INTRODUCTION

THE MIDDLE of 2003 saw an international internet debate conducted through e-mail about the need to 'revisit' Participatory Irrigation Management (PIM) in India and do some soul searching about its status, lessons learnt, prospects, etc. It thus appears to be the appropriate time for one to pen his views on how PIM should be propagated and implemented in India.

Government of India's commitment to PIM and the encouragement of water management being undertaken with the help of Water Users Association (WUAs) is apparent from a perusal of its National Water Policy (2002), the documents related to its celebration of Freshwater Year 2003, the February 2003 booklet of the Ministry of Water Resources (MoWR) on *Vision for Integrated Waters Resources Development and Management*, as well as the agenda notes pertaining to "Command Area Development and PIM" prepared by Ministry of Water Resource Management (MoWR) for the 12th National Conference of Water Resources and Irrigation Ministers held on February 5, 2003.

Similarly many states, (which in the Indian Constitutional set-up have much more influence on whether PIM can be introduced and can work in the water management and irrigation sector) have references to PIM and WUAs in their water policies and irrigation related legislation. Andhra Pradesh (1997), Madhya Pradesh (2002) and Rajasthan (2000) have enacted Farmers Management of Irrigation Systems Acts (the latter two being modeled on APFMIS—The Andhra Pradesh Management of Irrigation Systems Act 1997). Bihar used its experience of the famous Paliganj Distributory WUA to provide for government distributaries, minors canals or water courses to be handed over to WUAs as per the Bihar Irrigation Act, 1997. Gujarat, Maharashtra, Orissa, Uttar Pradesh, Tamil Nadu and Karnataka are amongst the states that have been using the Societies Registration Act or Cooperative Societies Act for the formulation and regulation of WUAs—though now Tamil Nadu Farmers Management of Irrigation Systems Act 2000 has come into force and led to the need to transform the more than 1000 WUAs registered under the Tamilnadu Societies Registration Act 1975 to bring them under the fold of the new TNFMIS Act. Orissa has come up which have many years experience of pilot WUA projects have with the Orissa Pani Panchayat Bill and both Gujarat and Maharashtra have prepared drafts of PIM and WUA related Acts. Karnataka on the other hand brought about amendments through the Karnataka Irrigation and Certain other Laws (Amendment) Act 2000 in the Karnataka Irrigation Act 1965 and the Karnataka (Levy of Betterment Contribution and Water Rate) Act 1957 and have provided for WUAs and federations of WUAs to be registered under the Cooperative Societies Act.

However in actual practice even in the states which have gone in for PIM related legislation, the progress of adoption of PIM and the performance of PIM where adopted, has been uneven in terms of WUAs actually taking over water management functions as also in terms of improved water management.

#### *What Should be Spelt out in State-level Legislation on PIM in India*

The month of November, 2002 saw the organisation of a workshop at WALMI, Aurangabad for discussing the draft Maharashtra Water Policy and two draft Bills including that of a proposed Maharashtra Farmers Management of Irrigation Systems Act, as also the statement of intent at a workshop in Kolkata on the irrigation components of the North Bengal Terai Development Project that the West Bengal Government would constitute a group to draft a Participatory Irrigation Management Act for West Bengal. A couple of months earlier, towards the end of September, the Task Force on Accelerating PIM in the state Through Legislative Approach constituted by Government of Gujarat prepared a final version of a PIM Act as drafted by it for consideration by the state government. Thus more and more states are contemplating the enactment of PIM related legislation.

As already indicated, PIM or Farmers Management of Irrigation Systems (FMIS) or Pani Panchayat Acts or related legislation dealing with transferring of management to WUAs presently stand promulgated in the states of Andhra Pradesh, Madhya Pradesh, Rajasthan, Karnataka, Orissa,

Bihar and Tamil Nadu. Of these, Madhya Pradesh and Rajasthan have modeled their Acts totally on the line of Andhra Pradesh and of the others only Karnataka appears to have followed a totally different approach of permitting flexibility along with legislation rather than going in for a uniform and 'big bang' approach as prescribed by law (for a comparison of these Acts see India NPIM Working Paper 11, 2002). Even Andhra Pradesh (whose PIM efforts are the most talked about in the country) found itself seriously examining the need for substantial amendments of its Acts within five years of its existence and took recourse to an ordinance to carry out amendments as their WUAs moved from first generation problems to second generation problems and it was realised that all the efforts through WUAs had still not resolved the problems of irrigation water supply. Madhya Pradesh has also gone in for amendments recently.

With PIM, or irrigation management transfer, being pushed by donor agencies as part of irrigation sector reform and being part of proclaimed water policies of Government of India and numerous states, it can be expected that more and more states would go in for PIM related legislation, and states already having such laws will consider major amendments as they experience and see the results of field level application of their PIM laws.

Thus many state governments water experts and bureaucrats are grappling at the present with issues about what should form part of PIM related laws. Accordingly it is appropriate to stimulate a debate on the matter by putting down my personal views (based upon many years of experience, study, reflection and writing that the author has done on irrigation systems and PIM) about what should be the components of state level legislations on PIM or Farmers Management of Irrigation Systems.

#### DEFINITION OF PIM IN INDIAN CONTEXT

A practical definition of PIM in the Indian context is that PIM involves a WUA taking over management (including operation and maintenance) of at least one level of canals above the outlet (*i.e.*, the minor canal) and also being associated with State Irrigation/Command Area Development (CAD)/Agriculture/Water Resources Department in efforts at improved and integrated water and agriculture management. Simultaneously PIM involves a redefinition and refocusing (and not a mere reduction or downsizing) of government's role in irrigation so as to lead to a genuine partnership or joint management between the government and WUAs. Thus PIM involves an approach based upon integrated and joint management of irrigation with the community (in the form of the WUA) and government agencies working together for equitable, rational, timely, and convenient allocation of water and increase in efficiencies both in canal management and on-field water application. The PIM approach allows for flexibility from region to region, irrigation system to irrigation system and even WUA to WUA. It can be applied to major, medium and minor irrigation and even to larger tank or lift irrigation systems.

PIM legislation should specify that regardless of whether the source is lift irrigation (from rivers or from community tubewells), or a tank system or a conventional irrigation system based upon storage and water distribution, wherever water is to be distributed among 30 or more farmers, the PIM and WUA approach should be mandatory.

The organisational structure of WUAs and functions would differ for small river lifts (RLIs) or tubewell lifts, from those for tank systems, or larger irrigation and CAD schemes, for RLIs and community tubewells a number of such contiguous schemes may be grouped into one WUA with each RLI or tubewell having a beneficially group sending one member to the management committee of the WUA. For regular irrigation or command area schemes each canal minor should have a WUA with two members each being provided for in the management committee from head, middle and tail areas respectively of the minor. Each of the head, tail and middle sections could have beneficiary groups covering the outlet (or *chak*) committees in the area. Water distribution below the outlet through water courses is in any case within the purview of the farmers and PIM legislation should instead focus on areas above the outlet from the minor.

In case of very small minors having small commands two minors could be grouped into one WUA. Size of WUAs should be fixed keeping in view future viability and the district collector in consultation with irrigation, CAD and agriculture department staff should determine this.

As long as water rights continue to be linked to land ownership (as is the case in our country), each land holder drawing water from the canal minor (or from the RLIs or community tube wells) would be a member of the WUA. Thus a land owner may be a member of many WUAs but should only be permitted to join the management committee in one WUA. The legislation should specify the rights and duties of both members and non-members in the command area of the canal.

As regards the management committee of the WUA, there could be a provision for half the members to retire every two or three years to be replaced by fresh elected members. The president of the minor level WUA management committee elected from amongst management committee members should automatically be a member of the distributory level users committee, and the president of distributory level users committee should automatically be a member of the project level users committee. The Act should specify that attempts be made to ensure consensus in elections of managing committee members, failing which elections should be held under overall supervision of the district collector.

### ***Functions of WUAs***

As regards functions to be performed by WUAs, there are two types of views. Some people feel these should be limited to maintenance of the canal and its structures, distribution of water and resolving disputes related to water distribution and collection of water charges, *i.e.*, only irrigation related functions. However, many experts feel that WUAs can be economically viable

and institutionally sustainable only if they also undertake various irrigated agriculture related tasks including input supply and post-harvest activities.

In terms of legislation what it means is that there should be two sets of tasks enumerated: one a core or compulsory group of tasks related to the management and maintenance of the canal (or lift) system which is the bare minimum that a WUA has to take up and the second list of additional agriculture and land-water management related tasks which a WUA could undertake either from its inception, or could gradually add on over the years as it gains in experience and confidence in managing its affairs.

The possible lists of functions that a WUA could perform include the following:<sup>1</sup>

- Acting as an interface between the farmers and the main system management of the irrigation project as well as other concerned government agencies (CAD/Rural Development/ Agriculture/Ground Water/Cooperatives Development/ (Land) Revenue and Irrigation Departments).
- Water distribution; irrigation scheduling including both rotational running of canals and warabandi; ensuring that water reaches to all members (as also non-members) as per their due shares.
- Operation and maintenance of the irrigation and drainage system. Collection (and assessment) of water charges and other user charges or special charges that the WUAs may levy.
- Resolution of local disputes amongst members—if necessary setting up of an internal system of penalties and other incentives or disincentives.
- Conflict resolution between members and non-members.
- Agriculture extension and farmers training.
- Recommending of cropping patterns and package of agricultural practices suitable for the WUAs' farmers.
- Management of inputs and credit supply to members.
- Irrigation extension and propagation of better on-farm water application and better intra-outlet command water management.
- Encouraging and taking up of conjunctive water use, or community lift irrigation.
- Drainage.
- Soil testing, water quality testing, water table monitoring, salt-sodic correction (if necessary).
- Provision of drinking water from canal.
- Post harvest practices (grading, packaging, storage and marketing).
- Design and construction of new works (irrigation works, OFD works, drainage works) as well as rehabilitation of canal and structures (deferred maintenance works).

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<sup>1</sup>R. Hooja, *Multidisciplinary and Participatory Water Management for Irrigation Command Areas*, IndiaNPIM Working Paper/Monograph No. 2, New Delhi, 2001.

- Maintenance of commercial, financial and water accounting records.
- Cooperating with other WUAs to form federations of WUAs to take over larger canal sub-systems.
- Any other task as mutually agreed upon by the members (*e.g.* canal side plantation, construction/maintenance of farm tracks, providing of matching funds on behalf of the command areas to the district rural development agency, or to Panchayati Raj Institutions as the case may be, for taking up of rural development work).

These broad tasks as suggested above may be divided into core and compulsory or mandatory tasks, and additional optional tasks, while being set forth in legislation. Further refinements in the two sets of tasks could be indicated by having separate lists of tasks for WUAs for RLIs, for community tubewell schemes, for tank schemes and for canal systems. Naturally detailed tasks for distributory users committees or project users committees would differ within the overall framework described above.

There should be provision for each WUA to sign two sets of MoUs—one related to core and compulsory tasks with representative of the Irrigation/CAD/Water Resources/Ground Water Departments, and the second related to additional optional tasks with the representative of the Agriculture/Rural Development/Panchayats/CAD Department. The legislation should also contain indicative drafts of MoUs delineating the rights and duties of government agencies and of the WUAs and each WUA should have the right to use the indicative draft to evolve actual agreements which they sign with government agencies. This would allow for flexibility to each WUA to evolve as per its own local requirements while adhering to the basic core of PIM.

### ***Functions of Government Agencies***

A list of functions that government agencies would need to perform to make PIM effective, as well as an indication of the type of enabling or facilitating role that government should play, and the changes within government agencies required, should form part of PIM legislation. The PIM legislation should specify that it is aimed at participatory, multi-disciplinary and integrated management of irrigated agriculture and of irrigation systems and that accordingly the concerned government agencies need to function in an inter-disciplinary mode.

Experience shows that panchayat bodies cannot perform the functions being expected from WUAs.<sup>2</sup> Accordingly, PIM legislation should specify

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<sup>2</sup>R. Hooja and G. Pangare, "Some Reflections on Software Aspects of Water Policy: CAD, PIM Watershed Development and Management and Water Harvesting", Paper presented at *Round Table on Water Policy* organised by Indian Society of Ecological Economics at India International Centre, New Delhi on May 10, 2002; revised version published as India NPIM Working Paper No. 13, January 2003; and R. Hooja Forthcoming, *Integrated Irrigation Management—Need for Multidisciplinary Command Area Approach and Improved Farmer-Management Interface*, Jaipur, Arihant Publishers.

that WUAs shall work independently from, but in coordination with, the constitutional panchayati raj bodies.

At the state government level each government department having a bearing on PIM should be mandated to designate a nodal PIM officer, with the main department responsible for PIM in each state government constituting a multi-disciplinary PIM cell in the state secretariat. Multi-disciplinary mobile PIM propagation teams should be constituted to move from project to project for creating awareness and orientation about PIM, helping to solve local PIM related problems, communicating government's PIM related policies and supportive measures to farmers and obtaining feedback from the field about policy changes required.

A state level PIM support group consisting of secretaries of concerned government departments, nominated PIM-water management experts, representatives of both state level and national level NGOs directly dealing with PIM, chief engineers of irrigation and CAD, director of rural development, etc., should be constituted to meet periodically to review PIM efforts in the state and suggest measures to make PIM more effective.

Similarly a water users council for coordination of PIM in the state should be set up with minister as chairman, secretaries of concerned administrative departments, heads of departments of concerned executing departments, a selected number of WUA (as well as distributary and project committee) chairmen, representing RLI, community tubewell, tank and canal irrigation schemes as well as different geographical regions of the state—so as to suggest implementation strategies for PIM and prepare annual action plans for propagating and administering PIM in the state and to review implementation of such annual action plans.

A committee of experts independent of the concerned government departments and agencies should be constituted as per the PIM laws to arbitrate disputes or differences of opinion on specific issues between government agencies and specific individual WUAs, or between two WUAs.

For PIM to be introduced and propagated successfully, awareness generation, capacity building and attitudinal reorientation are extremely important more so than for many other development initiatives. Thus each state needs to provide for a PIM training advisory group and for the preparation of three to five years perspective plans for PIM training and awareness building. This should be in addition to annual PIM action plans.

The PIM Act should take care that WUAs functioning before the enactment of the legislation do not get derailed due to various provisions of the new Act and that there is a transitional period allowed as well as that sufficient flexibility exists to permit the existing WUAs to continue functioning.

We have set forth a brief outline of what could be the contents of an ideal PIM Act for a state in India. The local administrative and irrigation related traditions and agro-climatic conditions would influence what is required for each particular state.

### *Further Reflections on a Strategy for Propagating PIM*

Various state governments in India have gone in either for a 'big bang' approach of uniform and simultaneous introduction of PIM throughout the state based upon and preceded by legislation (the leading example being Andhra Pradesh), or have gone in for some sort of a 'bottom-up' slow and steady approach (starting with pilot projects) of motivating and facilitating the creation of WUAs wherever the farmers agree to voluntarily come together and to form associations so that they gradually takeover some functions on their local irrigation systems. The author refers to the latter as cafeteria approach in that (just like as in a 'cafeteria' or canteen a menu or list of items is displayed for the visitor to choose one or a combination of them) the possibilities of PIM and various functions that WUAs could undertake are made known to farmer water users who can then decide whether or not to form WUAs and what combinations of functions they would like to take up through their WUA and what functions they would like to add-on after a few years of experience of operating WUAs.<sup>3</sup> In the latter approach the WUA would be free to choose its own internal structure and the manner in which it would become a legal entity. Both the above approaches are dependent upon large-scale and repeated training and orientation efforts not only for capacity building but also for spreading the PIM message and thus helping in the propagation of PIM.

It is to be seen to what extent the 'big bang' approach of large-scale creation of WUAs in a uniform manner throughout the state by statutory enactment in Andhra Pradesh shall succeed due to the political will behind it (whereby large-scale training and joint walk through survey-diagnostic analysis of existing irrigation systems are also being carried out on a massive scale).

At least Maloney and Raju<sup>4</sup> hold a contrary view and are categorical that each WUA should be spontaneous and not be formed by government orders, should be set up using existing social capital, and should be gradually built up over a period of time and not be based on any single uniform organisational model. As would be obvious, the author does not favour either a uniform, or a big bang approach, and prefers flexibility to choose from a variety of models of WUAs and the gradual adoption of PIM so that it can take strong roots wherever adopted.

The question of which of the two approaches is considered more suitable for each particular state in India, is intertwined with the issue of external donor-driven or government driven-PIM versus internal and spontaneously derived WUAs and PIM-and whether PIM needs to follow the enactment of a special PIM or FMIS Act, or can even take-off without such legislation. A similar question is whether rehabilitation of canals needs to precede introduction

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<sup>3</sup>L.K. Joshi and R. Hooja (ed.), *Participatory Irrigation Management: Paradigm for 21st Century*, (2 volumes), Jaipur, Rawat Publishers, 2000.

<sup>4</sup>C. Maloney and K.V. Raju, *Managing Irrigation Together: Practice and Policy in India*, New Delhi, Sage Publication, 1994.

of PIM or not. In both approaches the rights of members and non-members would need to be spelt out in advance and it would also need to be ensured that locally influential people should not be able to capture the WUA, or to grab more than their share of benefits.

Of even more significance is the issue of whether improved water and agriculture management should be the sole objective of PIM, or whether it should be attempted that a host of other societal goals are also simultaneously met through PIM. The author feels that other goals may be left for panchayat bodies and for the government to fulfil. Thus whatever PIM models are propagated should concentrate on the management of water, canals and on irrigated agriculture and related agricultural activities.

No one model of WUA can fit all situations. WUAs need to differ accordingly to whether they are situated on major, medium or minor canal systems, or cover the larger tank or community lift irrigation schemes. A WUA created where a warabandi system and warabandi culture exists would be different from those where other systems of canal irrigation and water distribution have been in force. A WUA set-up before canal construction or rehabilitation and repairs commences would behave differently from one constituted after such works are over. A WUA's nature would also differ based upon the manner in which it gets initiated and the nature of external factors and prime-movers behind the formation of WUAs. Region (and the cultural, socio-economic features of the region) and topography may also influence the nature of a WUA.

However, whatever the type of irrigation systems in existence or model of WUAs being adopted, farmers willingness to undertake PIM and both the initial success and long run sustainability of PIM is dependant upon whether the returns from PIM provide enough incentives<sup>5</sup> to the farmers to offset the substantial costs (monetary and otherwise) of participation and undertaking managerial responsibilities. Physical improvements to the irrigation system in terms of deferred maintenance or rehabilitation works provide only short-term incentives for participation. The farmers need to see possible longer term gains from participation which would depend to a large extent upon the ability of the state to provide a receptive partner bureaucracy and enabling conditions for farmers to take on a greater role in irrigation management which can lead to improvements in water delivery services and system maintenance and the evolution of a feeling amongst the farmers that they can have a genuine voice in water allocation decisions which in turn could lead to increased yields and incomes because of more predictable, reliable and flexible water supplies (including more convenient operation of the irrigation system) and reduction or better resolution of conflicts.

Thus, for the farmers the benefits of physical system improvements,

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<sup>5</sup>R.Meinzen-Dick, "Farmer Participation in Irrigation—20 Years of Experience and Lessons for the Future", *Irrigation and Drainage Systems*, Vol. II, 1997.

improved water supply, increased farm income, empowerment and conflict resolution obtained through WUAs should offset the substantial time, materials cost and inter-personal transaction costs of being active in local irrigation organisations for them to make the effort of constituting WUAs and of subsequently managing them and the irrigation systems.

An expanded role in main system management through federations of WUAs or through project committees/distributary committees can be a major incentive for farmers to participate on WUAs. As Tang and Ostrom<sup>6</sup> have pointed out, unless the farmers have the freedom to participate in both the governance and management process of their irrigation systems, they will be uncertain about the returns of their efforts and thus have little incentive to participate in collective efforts at operation and maintenance.

The goal of PIM is not the mere transfer or turnover of irrigation systems or sub-systems to WUAs—such transfer is merely a means and not an end. Nor is the goal merely to ensure deferred maintenance or rehabilitation of canal systems. Saving of governmental funds or helping to solve the fiscal problems of state government also is not a basic objective, at least in fact in the transitional phase, when users have to be motivated and trained to set up WUAs which take over systems/sub-systems and when government organisations are being restructured and the staff being retrained or supplemented with personnel having social organisation and other related skills required for PIM, the government expenditure may even go up. Nor should abstract concerns for decentralisation or privatisation be the driving motive for propagating PIM. (Unfortunately many donors like World Bank appear to be more interested today in privatisation oriented goals than in the community and government being used as a means of improved water management.) Nor should PIM be viewed as a mechanism for implementing government schemes or a means for government to pass on its responsibilities to WUAs. The goal instead is improved and integrated management of water and agriculture through a joint partnership of WUAs at various levels and of government agencies—both of whom ultimately represent the community.

Areas where PIM has already been introduced sometime ago face what can be referred to as second generation problems. Svendsen, Trava and Johnson<sup>7</sup> mention insecure water rights, financial shortfalls and lack of financial and administrative experience as amongst the second generation problems of WUAs; need to redefine and to create new roles for itself and for its staff as those of the irrigation department; and the need to increase farm productivity to take advantage of possible improvements in quality of irrigation service and accessing support services (credit extension, newer technologies,

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<sup>6</sup>S.Y. Tang and E. Ostrom, *The Governance and Management of Irrigation Systems: An Institutional Perspective*, London, ODI Irrigation Management Network (Network Paper 23), 1993.

<sup>7</sup>D. Groenfeld and Mark Svendsen (ed.), *Case Studies in Participatory Irrigation Management*, Washington, Economic Development Institute, 2000.

markets and market information, access to inputs, post harvest facilities) as that of individual farmers. These issues need to be thought through in advance and planned for before initiating PIM in any area because even one single failed PIM effort at the level of a small WUA can have more of a negative demonstration effect than a hundred successful WUAs. And the impression cannot be permitted to emerge that PIM faces major second generation problems.

It also needs to be emphasised that PIM is not a panacea for all the difficulties being faced in managing irrigation. Many issues have purely technical solutions. Many others would require government action. However, without the userism involved in PIM, technical fixes and governmental actions by themselves may not suffice. Secondly, it needs to be recognised that financial and infrastructural creation/repair support as well as government orders and legislation may enable WUAs to be initially created, but unless major social, institutional and Human Resource Development (HRD) and related support including that of the irrigation and agriculture as well as CAD departments, is made available and farmers are enabled to successfully manage canals on their own, the sustainability of PIM may not be achievable.

#### *Government's Role*

It is quite obvious that government and its various agencies and departments have a significant role to play in the initiation, propagation and sustainability of PIM.

The government has to create an enabling environment through: (a) policy resolutions, (b) specific programmes, projects and activities to be implemented or sponsored by government, (c) providing intellectual, administrative and implementational leadership, (d) putting into place legal and administrative provisions and procedures including acts, rules, government orders, (e) undertaking mass awareness building and promotional efforts, (f) providing technical advice and technical back-up as well as funds to WUAs for selective activities while continuing to perform many tasks on its own and initiating newer tasks which were not being undertaken earlier in the pre-PIM era by government agencies, (g) ensuring attitudinal and behavioural change amongst employees of all government departments directly or indirectly concerned with canal (and community lift) irrigation, (h) creating nodal points of PIM in all concerned government departments both at the Central and state government levels with a multi-disciplinary PIM unit supported by an advisory group of experts being located in the water resources or irrigation/CAD department, (i) creating multi-disciplinary mobile PIM propagation teams to move from project to project, motivate as well as orient and train farmers and field/project level government staff, obtain feedback about changes required at the government level, and generally take steps to ensure that PIM takes off and functions properly, (j) preparing guidelines and field manuals, (k) arranging for various sorts of PIM related training, (l) helping WUAs to rehabilitate old irrigation systems to bring them up to at least a minimum operational level, (m) involving NGOs and community organisers, and (n) providing incentives, monetary, or

otherwise for: (i) farmers to undertake PIM, and (ii) government staff to facilitate it.

As WUAs take over many functions including the management of canals, the government CAD (or irrigation) department would have to gear itself to look more to construction and management of dams and the main canal system or drainage works, providing technical advice, training, introduction of new technologies, major repairs, creation of an organisation for interfacing with WUAs and other government departments and for motivating and catalysing the formation of WUAs, as also undertaking long-term water resource planning.

Statutory and administrative empowerment orders may have to be issued by government to facilitate the adoption of PIM. WUAs should be enabled to charge for services (provided the rates prescribed by them are not less than those of the government), decide about water distribution, impose punishments, and provide rewards and incentives. The duties of government as regards to PIM, and governments responsibilities towards WUAs, would need to be spelt out in Memorandum of Understanding (MoU) between government and each specific WUA so as to act as a supplement to general executive orders and legislation regarding PIM. Such MoUs and orders/enactment would also specify the expectations from the WUAs *vis-à-vis* the government, *vis-à-vis* WUAs members, and *vis-à-vis* society as a whole. If integrated inter-disciplinary and multi-functional CAD agencies exist then one MoU between the agency and WUA would suffice—otherwise a number of supplementary MoUs between the WUA on the one hand and irrigation, agriculture, GWD and CAD Departments (and perhaps even district rural development agency) respectively on the other hand, would be required. The MoU should ensure that no ambiguity remains regarding the rights and duties of the WUA and its members and the rights and duties of those government agencies who are a part of PIM and their employees.

Since the government needs to play the role of the interfacing and catalysing agency, predetermined and transparent provisions and procedures need to be evolved for negotiations/arbitration between WUAs and government whenever required. Provisions would thus have to be put into place for WUAs to, if they so desire, appeal to government agencies in certain situations for help in conflict resolution between the WUA and other agencies/individuals or within WUAs—as also for appeals against government's irrigation, agriculture or CAD department decisions, if required.

A large number of pilot PIM projects, and action research in PIM, as well as PIM orientation, training and implementation review workshops should be supported to provide a positive demonstration affect in favour of PIM, as also to provide experience in the working of PIM which would then be reflected in subsequent legal enactment, and manuals and guidelines on PIM.

As regards technical help to WUAs, government would have to arrange for providing advice; undertaking major repairs and major construction; ensuring the availability of machines on hire basis if required by WUAs;

helping the WUAs in the designing of engineering works and in ensuring quality control in works being implemented by WUAs, and help the WUAs and their members in adopting improved on-field water application techniques, and water regulation and distribution techniques as also in other improved agricultural and land-water management practices through irrigation (including drainage) extension and agriculture extension efforts.

A system of payments, incentives, subsidies, grants, etc., would also need to be devised which encourages WUAs to raise their own resources and undertake their own works, yet ensures that WUAs are recompensed for works that should normally be undertaken by government, and also address concerns regarding the viability of WUAs.

One-time functional managerial grants should be made available to WUAs in addition to support for the rehabilitation of the canal and drainage system to bring it up to a minimum functional level. However care should be taken so that the WUA does not get treated like a contractor, but as a user group and stakeholder that is sharing in irrigation management.

Unfortunately, exceptions apart, most states tend to look to Central India or to external funding through aid projects for funds to expend on propagating PIM. Government of India's PIM related assistance is available for a limited number of activities and is channeled through its Centrally-sponsored scheme of CAD and this is restricted to irrigation schemes covered by the CAD scheme and is not available for other irrigation systems. Not all states can obtain external aid for the water sector which includes PIM type components. Hence state governments would need to come forward and commit their own funds for PIM related activities. Government of India should also push through its proposed Centrally-sponsored scheme on PIM which has been on the anvil for the last two-three years.

The government has to agree that part of the water charges recovered shall be the share of the WUA based on the number of activities that it takes over from the government as well as the level of the irrigation system (minor, branch, distributary, main canal, drains, headworks and dam), whose management the WUA takes over. A formula may even need to be worked out for providing O&M grants which could be performance based depending upon ensuring supply of their due share of water to all, the O&M efforts put in, and the recoveries of water charges affected (if the WUA takes upon itself this task) by the WUA. Simple but objectively verifiable criteria for assessing each WUA's performance would need to be established in advance so that both the WUA and the government agency know about these criteria well in advance. It should also be prescribed in advance that if the WUA raises additional resources for certain activities other than the basic O&M of the canal, then the government would make available some matching grants to the WUA.

In the initial stages government would need to finance (and also assist otherwise) forthcoming numerous pilot PIM projects and action research projects. NGOs, research institutes and state government/project agencies.

could take up such pilot projects jointly with WUAs. For such pilot trials (and demonstration projects) WUAs would need to be given back at least 50 per cent of the water charges (presently being levied at nominal rates) from their areas for managing and carrying out the O&M and other WUA functions.

For areas where WUAs take over the management of canals and other PIM activities, the government could give them a higher priority while sanctioning other development schemes of various government departments. In fact WUAs should be permitted (and perhaps even encouraged) to implement various government schemes not directly related to PIM for which government should make available funds to the WUAs for those activities and their management and supervision.

Government would also need to coordinate so as to facilitate the availability of institutional finance in case WUAs want to take loans for their activities.

Regardless of whether or not PIM is being introduced, government needs to ensure that : (i) water charges are raised and a substantial part of the charges recovered are ploughed back into direct action for improved and sustained operation and maintenance of canals, and (ii) integrated multi-disciplinary / multi-departmental interaction with farmers and WUAs, and similarly integrated main systems management, is undertaken through integrated project organisations for the larger projects which have strong links with user-farmers and which cut across departmental boundaries. Both these steps would however greatly help in the propagation, acceptance, efficacy, sustainability and success of PIM.

### *Training for PIM*

The success of PIM would also depend upon large-scale training and orientation efforts. The voluntary, bottom up, and flexible cafeteria approach to PIM can only take off through orientation and training efforts. But both the cafeteria approach and the uniform, legislation-driven 'big bang' approach can only work if massive training and capacity building support is provided not only for imparting technical and social organisational and interaction skills but also to bring about attitudinal change amongst all the different categories of actors and stakeholders. Such training would need to be continuous as WUAs move from initial teething problems, to full-fledged operations and then gradually encounter second generation problems. It would also need to cater to new WUA management committee members who get elected in subsequent elections and to the change in government functionaries due to transfers.

While keeping the above in mind, PIM training has to be planned and conceptualised in its broadest sense to include mass awareness-building and attitudinal change in addition to imparting skills and knowledge related to irrigation, participation, group dynamics and conflict resolution, irrigation laws, office procedures, financial accounting, etc. The training has also to be a two-way process serving as an instrument of change in the PIM reform process and making available skills, knowledge and orientation on the one

hand, and on the other hand providing a mechanism for feedback from the field whereby policies, procedures, laws, rules, strategies and schemes can be modified and the adoption of PIM facilitated.

The PIM related training would thus need to :

- Create a favourable climate within the country in general for the propagation of PIM.
- Prepare water users to undertake PIM through WUAs
- Enable the government departments and agencies related to water resources and irrigated agriculture to reorient themselves and to adopt new roles, organisational structures, processes and ways of functioning so that they can play a facilitating role for furthering PIM and joint farmer-government agency partnerships.
- Change the orientations and knowledge base of water professionals and policy-makers in the water sector.
- Equip lower level functionaries of government, employees of NGOs and others to be able to effectively facilitate PIM and thus to ensure better water management.

Accordingly, PIM training should include:

- Efforts at general orientation about PIM and attitudinal reorientation about PIM.
- Knowledge and skills in improved water and agriculture management including drainage, *i.e.*, technical matters.
- PIM related procedural, administrative and organisational issues, (including those related to social interactions and group dynamics as well as participation), available incentives, sources of incentives and funding, etc.
- Lessons from a variety of case studies about successes and failures of PIM initiatives and projects in India and abroad.
- Commercial matters and accounting systems (*e.g.*, bahikhata' system) which local farmers may be able to understand more easily.

Training and orientation programmes need to be planned and organised for a variety of categories of people. Such categories of trainees would include: (i) politicians (at Central, state and various sub-state- local-self government/ panchayati raj institutions/cooperatives, etc., levels), (ii) farmers, (iii) WUA personnel (elected office bearers as well as WUA employees), (iv) NGOs, (v) community organisers, (vi) senior officers (in Central and state government as well divisional commissioners and district collectors), (vii) middle level officers (comprising generalists as well as specialists from agriculture, irrigation, CAD, groundwater, rural development and panchayats, cooperatives, etc., departments and from the district administration), (viii) junior level officers (especially those related to irrigation, CAD and agriculture, and such others with whom the WUAs are likely to have regular interaction), (ix) officers of registering authorities (since, in many states of India, the WUAs are being

registered under either Cooperative Societies Act, or the Registration of Societies Act, or by the CAD authority/irrigation department), (x) trainers from WALMIs/IMTIs/WALAMTARIs or other training institutes related to agriculture, irrigation, rural development and panchayats, cooperative, etc., or trainers picked up from amongst government department's implementing PIM, or WUA Chairmen, or NGOs, etc., and (xi) mass media professionals and the general public (including students).

At the state level each state should prepare a perspective plan on PIM training orientation and capacity building and ensure that the training becomes a two-way flow of knowledge (technical and policy-oriented) to the field and of feedback to the government and thus can positively influence implementation to PIM. PIM action plans and PIM training advisory groups, as advocated in the earlier section on what should constitute part of a model state level PIM legislation, would also be desirable.

#### RECENT INTERNET DEBATE ON REVISITING PIM IN INDIA

Now to turn to the informal internet debate on 'revisiting PIM in India' mentioned at the start of this article. This debate had kicked up when the Executive Director of International Network on Participatory Irrigation Management (INPIM) sent an e-mail to the officiating President of Indian Network on Participatory Irrigation Management (IndiaNPIM) and a few others and lasted over three weeks with most respondents agreeing on the need for a detailed workshop on the subject. The debate, in which this author had also joined and shared many of the thoughts indicated above, dealt in some detail with the participants perceptions of how the Andhra Pradesh 'big bang' effort has been faring (some felt it was a significant success, but others went against it) with brief comments about PIM in some of the other states. Though one of the suggestions was that we need to move beyond the debate on pilot versus 'big bang'.

A view was also expressed that the politics of the reform process in India—which groups or sections of people are pushing for PIM and why, which are resisting and holding it back or are indifferent to it—and their motivations<sup>8</sup> which analyses motivations of different categories of people in propagating or resisting PIM—needs to be analysed and understood since that would enable us to understand the status of progress in introduction of PIM in various Indian states. Mention was made of the need for a 'political constituency' for PIM reform to evolve.

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<sup>8</sup>R. Hooja and G. Pangare "Participatory Irrigation Management: Issues Related to Policy, Implementation and Research" paper presented at Workshop on *Policy Futures for Water Resource Management in India*. From Prescription and Impact Assessment to Strategic Analysis organised at Hyderabad from October 3-5, 2002 by IWMI India Office, SaciWATER's and Wageningen University.

It was also postulated that PIM should be seen as a part of broader irrigation reform which itself should be situated much more explicitly in the water and natural resource sector and rural development framework.

There was a suggestion that much reliance had been placed on the pilot experiments approach and hoping that governments would help to expand and replicate the same and reflect them in policy. It was also pointed out that the policy advocacy effort has not really questioned expressed policies and that very little experimentation had been undertaken with alternative institutional options other than traditional WUAs. Irrigation departments continue to remain firmly in control and there is little power sharing or the emergence of joint management institutions.

The need for reorientation of irrigation agencies and irrigation administrators was referred to by a number of persons.

A commentator picked on this author's idea expressed during the debate (and also contained in many of his articles including the present one), that PIM is not the panacea for all difficulties of irrigation projects and that many issues have purely technical solutions. The question was raised as to whether PIM would require irrigation systems to be redesigned and rebuilt to enable WUAs to be able to take appropriate decisions related to water distribution. The same commentator went on to state that the manually operated systems found in South Asia /South East Asia are the most difficult to manage. Irrigation agencies have not been able to properly manage these systems. Accordingly, is it fair to transfer management to WUAs and to expect successful water management from them? Most irrigation systems need to be upgraded. Their poor performance is related to faulty designs and unrealistic procedures as well as optimistic assumptions at the planning stage. He further added that physical and organisational improvements are not isolated and separate actions have to be part of a well planned process. The association of technical changes with institutional reforms is required for success. Seeking remedies to poor performance of irrigation systems merely in the institutional sphere will lead to continue lack of attention to operational problems that plague large-scale irrigation systems.

The above observations are interesting since PIM in India is being contemplated either along with some 'deferred maintenance' works on canals or some repairs to restore the canal to a minimum functional level as per existing designs, or even without such works. What the commentator was worried about—institutional PIM reforms being considered and pushed in isolation—appears to a large extent to be true. Water resources or irrigation departments continue to tend to be concerned more with construction and what are referred to as 'technical issues'.

The e-mail debate also saw reference to a view that mere transfer of canal alone (a major component of PIM in India) is just "moving chairs" unless a larger reforms package is undertaken along with the transfer.

There was a view that the fundamental assumption for formation of WUAs—that if all stakeholders come together and negotiate by means of the "rationality

of communication" this would potentially resolve various forms of disagreement and enable the WUA to arrive at a mutually accepted notion of 'common good'-requires serious questioning since in reality the formation of WUAs has usually resulted in the elites having captured much of the democratic space. The merits of top down approach and attempt at a uniform model are accordingly questionable.

This was echoed by other participants in the debate who felt the top down 'big bang' approach would have limited impact if it ignores specific and diversified ground realities of social relations, conditions of production, as also sources of resistance to the reform efforts.

It was pointed out that PIM taking place at lower levels (the canal minor) remains a weak, lifeless initiative because higher levels continue to be managed as earlier by the irrigation agency.

On the PIM related Acts one commentator felt that they remain little more than wish lists which spell out governments' keenness for reforms and provide legitimacy to WUAs—they serve as little more than the specifics of irrigation departments commitment to reform so as to please funders and donors and to impress the research and policy community that a lot is happening in PIM. The author felt that the above commentator was being unduly harsh in his views about PIM legislation despite there being a grain of truth in his opinion. After all Andhra Pradesh and Madhya Pradesh have gone through elections as per their Farmers Management of Irrigation Systems Act and a number of other states are working at the operationalisation of their PIM Acts despite resistance from some important quarters in some cases.

A useful contribution on the 'big bang' versus 'slow-learning-by-doing' approaches was that partial coverage under PIM of an irrigation scheme creates disparities in terms of service to users and contributions from the users. Thus creation of WUAs over the entire command area of a particular irrigation scheme should be ensured at the same time. PIM should therefore adopt the concept of full scheme coverage.

The appropriate or optimum size of WUAs and their responsibilities also found reference in the e-mail debate- as did the role of NGOs and of government, and the need for farmers taking greater initiative in the introduction of PIM. The idea of floating and generating farmers networks to lobby for PIM also found mention in the debate.

The need was emphasised for flexible design of reforms using the principle of continuous incorporation of 'learning-by-doing' and that such learnings should not be limited to learnings about administrative measures.

There was widespread agreement that the status of PIM in various parts of the country (most participants were dissatisfied with what has been achieved so far) needs to be understood with strategies for propagating 'revisiting' or re-examining PIM in India.

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Note: the views expressed in this article are personal and academic and do not represent those of the organisation where the author presently works.

## BOOK REVIEWS

### **Sustainable Management of Wetlands: Biodiversity and Beyond**

JYOTI PARIKH AND HEMANT DATYE (eds.), 2003, New Delhi, Sage Publications, p. 444, Rs 650.00.

The book under review has emerged out of collaboration between Indira Gandhi Institute of Development Research (IGIDR) and the Government of India's Ministry of Environment and Forests (MoEF) while executing the project of capacity building for sustainable development under Agenda 21, which was sponsored by the United Nations Development Programme (UNDP). This project had lasted for four years from 1995 to 2000 and the book was finalised thereafter.

The 12 chapters of the book have been grouped into four sections.

The first section starts with a chapter that provides an overview of Indian wetlands which have been categorised into Himalayan wetlands, riverine wetlands and coastal wetlands (including mangroves, coral reef ecosystems, etc.) and analyses the functions and benefits of wetlands from hydrological, ecological and anthropological perspectives (including functions necessary for biodiversity support and livelihood support). Y. N. Rao and Hament Datye have also discussed the threats, man-made and natural to Indian wetlands as well as the evolution of India's national policies/strategies pertaining to wetlands and the International Ramsar Convention on wetlands in this chapter.

P.S. Roy and M.D. Behera have, in the next chapter, indicated how remote sensing can be used along with conventional data collection for nation-wide wetland mapping, monitoring and management.

The next three chapters (Chapters 3 to 5) deal with coral reef, mangrove and man-made riverine ecosystems respectively in the Indian context.

Mangrove forests serve as a link between terrestrial and marine ecosystems. Sanjay Deshmukh and T. A. Rao have set forth a table (p. 165-66) listing man-mangrove interactions, economic benefits and impacts, while categorising the main activities into fishing, farming, logging and development activities. They have also highlighted conflicts between different stakeholders amongst the same group (fishermen), across groups (fishermen *versus* rice farmers), and across the generations, and have suggested a number of measures to prevent loss

of mangroves ecosystems including reforestation, species education and improvement, sustainable utilisation of resources, pollution control, wildlife conservation, habitat management, etc.

As man-made wetlands now outnumber natural ones, Prakash Gole has set forth his ideas about measures (Chapter 5) that can be undertaken to bring about a successful integrated management of river systems including the eco-development of macro-watersheds.

The second section of the book moves on from the ecological approaches of section one, to managerial and economic approaches described in two chapters, both of which have been written by the editors (Parikh and Datye).

Chapter six ('An Approach to Indicators for Wetland Planning, Monitoring and Policy') describes both the process and performance indicators required for planning, monitoring and policy purposes, and to determine the impact of intervention projects. The health of ecosystems needs to be monitored across time and space. The authors describe some national, regional, community and species level indicators specifically for wetlands. Current approaches to measuring genetic diversity, species diversity, richness, heterogeneity, and evenness have been discussed, as have a set of indicators that capture qualitative aspects such as community participation and regulatory factors for wetlands. Annexures 6.1 to 6.3 (p. 258-67) contain sets of indicators for wetlands management.

Chapter seven discusses the economic contributions of wetlands (including possible losses due to loss of wetlands), before the authors describe various valuation methods (the authors prefer to use the term 'economic assessment' instead of valuation) that can be used to value the functions, services and products of wetlands. A whole range of valuational techniques borrowed from environmental economics can be applicable in specific wetland situations. "For example, those wetlands that yield direct benefits in exchange value can use market value method, hedonic pricing can be applied in the case of property facing lakes and beaches, especially in urban areas, travel-cost-methods for those wetlands which have recreational and tourism value, shadow price methods where alternatives are expensive, for instance water supply from long distances, simulated market techniques that include contingent valuation to visit or conserve the wetlands or indirect opportunity costs. Some considerations need to be given to restoration costs, relocation costs, or avoided damage" (p. 33).

The third section of the book is a case study of Rajasthan's Keoladeo National Park (KNP), a man-made wetland developed during the 1800s,

in the form of three chapters; each of which adopts a different approach for its analysis.

The eighth chapter 'Salient Features of the Ecosystem of the Keoladeo National Park' constitutes an in-depth ecological analysis of KNP conducted by Bombay National History Society over a 10 year period. In chapter nine, Prashant V. Mahajan has tested out a framework that emphasises knowledge, attitude and practices, which not only involves local participation, but also binds them together to preserve the heritage.

In the tenth chapter 'The Valuation of Biodiversity within Protected Areas: Alternative Approaches and a Case Study', Kanchan Chopra of Institute of Economic Growth, Delhi explores two specific economic approaches for the valuation of KNP. First the travel-cost method is used to determine its value for a variety of tourists so as to study the nature of demand. The study is based on data of travel costs, stay expenses, duration of stay and various socio-economic characteristics. The probability of a visit is made a function of 'local travel costs', reason for visit, household income, and opportunity costs of time. The results indicate that the demand for the services of KNP is price-inelastic.

The second approach used by Kanchan Chopra for valuation is based on multi-criteria analysis of four types of stakeholders: scientists, village residents, tourists, and non-users. Investigators were used to note down the priorities of different stakeholders for different value-yielding attributes of the park. While different stakeholders had value preferences for different functions or attributes, it was found that there exists a fair degree of congruence in the perceptions of diverse groups with respect to ecological function value and livestock value.

Both approaches suggest that high-income tourists, scientists and others could be asked to pay more for the services provided by KNP. Accordingly, a policy of better maintenance and cross-subsidisation of locals who may lose their livelihoods could be put into place by committees of stakeholders entrusted with the park's management.

The last two chapters of the book move back from the case study to the broader picture and chapter 11 accordingly deals with the issue of the need for protected area networks of wetlands and the criteria to select the same. This is because, while wetlands used by people would have to be preserved by the people themselves through participatory management, those supporting biodiversity require special attention from ecologists through some sort of a protected area/conservation area framework (Chaudhari and Ram, in chapter 11, have suggested a three-tier scheme for the same).

The final chapter reports on the efforts of the entire team of authors to develop a national wetlands strategy and action plan through a series of yearlong workshops and meetings starting with a brainstorming session and a consultative workshop, followed by a large number of inter-ministerial meetings chaired by the Secretary of MoEF.

The National Wetland Strategy is aimed at conserving multi-use, multi-function wetland ecosystems, preventing their further degradation and loss, and developing a restoration strategy (including creation of new wetlands), as well as promoting sustainable and ecologically sound use of wetlands and their resources by giving importance to traditional practices and the interests of indigenous local users. The strategy/policy document was consciously prepared to fit in with existing policies and strategies of various Central Ministries and with the Constitutional position and existing laws as they impact on the subject, as well as the country's obligations as per international agreements (all of which have been spelt out in an appendix to the chapter).

The immediate short-term strategy suggested includes giving protection to biologically important wetlands and accordingly introducing planning and monitoring, initiating participatory practices, and promoting cross-sectoral and inter-ministerial responsibility in Central and state governments as well as municipalities and panchayats.

In a separate review of this book (in *Social Change*, Vol. 34, No. 1, March 2004) Somnath Bandyopadhyay (a Delhi based ecologist) expresses disappointment with the last two chapters of the book under review for their failure to break from traditional approaches to conservation and management of such areas—and gone on to state that “the final chapter could well have been written by bureaucrats in the last decade, rather than a modern economist... It neither deals with hydrologic regimes nor with stakeholder participation in any substantive manner” (p.167).

The present reviewer, himself a bureaucrat, would also have preferred the concluding chapter to contain greater details about the steps required to be taken for different types of wetlands, as well as details about the required administrative and management structures and processes, and the specific roles that need to be played by community based organisations and user groups, panchayati raj institutions, NGOs, private sector bodies, activists, scientists, the district administration and district level officers of the state government, government agencies at the state level, Central government ministries, etc., in the process.

Harping back to the beginning of this review—as noted there the editors had indicated that ecologists had, while working on this book

project, imbibed some of the approaches of the environmental economists. It is but natural that due to similar repeated interactions with government servants, some of the thinking of bureaucrats would have rubbed off on the editors and contributors of the book and influenced the contents of the concluding chapter. What this reviewer hopes is that the interactions have also resulted in the bureaucrats imbibing useful ideas from the ecologists and economists to the benefit of the wetland ecosystems.

We may end this review by referring to the message in the book under review by Walter Reid, Director Millennium Ecosystem Assessment Malaysia that “the book stands out as a pioneering study to provide a more complete understanding of the linkages between people, human livelihoods, wetlands and biodiversity. It is pioneering both in the tools that it develops to assess these linkages and the process that it has used to bring together the different academic disciplines and to explore the role of stakeholder involvement in such assessment” (p. 15).

— RAKESH HOOJA

### **History of Mauritius - Experiments in Democracy**

CHIT DHUKHIRA, Mauritius, Chit Dhukhira, 2002.

Mauritius is a fascinating island nation in the Indian Ocean attracting a large number of visitors from across the world. The history of Mauritius begins in the 16th Century that was colonised initially by the Portuguese followed by the Dutch and the French who tried to impose their culture and values in this territory. Mauritius witnessed waves of immigration from slaves from different parts of Africa and indentured labourers from India. The fact that Mauritius as an island had no native population of its own and the remarkable growth of democratic institutions in this nation is a tribute to successive generations of immigrants from India, China and Africa. The present study by Chit Dhukhira provides a peep into the history of Mauritius, but more importantly it depicts innovatively successful experiments in developing a stable democracy in a geographically important part of the world.

Schematically, the author has divided the book into three meaningful parts with a view to bring out the history of Mauritius in an objective manner. The first part of the study discusses European rule from 1500 to 1967. Here the efforts of the French administration, the development of nascent and the British take over in the 19th Century, followed by Asian immigration especially Indian indentured labourers political awakening through constitutional advance and development of the

# GOVERNANCE, DEVELOPMENT AND THE MAINTENANCE OF INTERNAL SECURITY: SOME COMMENTS\*

**RAKESH HOOJA**

*This article looks at some aspects of good governance and development which play a critical role in improving the internal security scenario throughout the country. A greater reliance on decentralised and community based institutions, equitable spread of developmental endeavour, an accessible and responsive administrative machinery, and effective grievance redressal mechanism at various levels are some of the key factors that can usher development-oriented governance. It reiterates the importance of maintaining a high level of social contentment and order to facilitate developmental activities and social equity. Only then the benefits of development can be felt in every corner of the nation.*

GOOD GOVERNANCE contributes not only to development, but also to the maintenance of internal security. Lack of development can adversely effect the internal security situation, whereas at the same time unless conditions are peaceful it may become difficult to implement development schemes properly.

A factor that contributes to worsening internal security situations is a sense of feeling aggrieved or deprived amongst some sections of the population resulting in their alienation from the system. The situation can also be exploited by, for example, left wing extremist groups, if there is lack of sufficient development, or provision of social services, or of availability of employment opportunities, or there is a feeling that the fruits of development are all being cornered by a particular section or group in society. Overcoming such disparities naturally involves going beyond the realm of mere police and law and

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\*The views expressed in this article are purely personal and academic and do not necessarily reflect those of the organisation where he is presently posted.

order administration and focusing on general administration especially at the district and lower levels, as also on improved development administration and on an effective delivery system.

Some aspects, which this observer considers relevant and which should contribute to an improved internal security situation in India, are being discussed.

There is a need for greater reliance on panchayat institutions (third-tier of Indian federalism) and community based organisations and user and beneficiaries groups (author refers this as the fourth-tier of Indian federalism) in the implementation of various developmental initiatives so as to enable a sense of participation, and thus of ownership, to grow amongst all sections of the population. At the same time people should not be allowed to feel that the second-tier of federalism (the state government and its field level functionaries) have withdrawn or abdicated their responsibilities and left it to Panchayati Raj Institutions and community bodies to undertake development locally. All three-tiers are important in their own right and need to work in tandem.

Specific efforts need to be made to ensure representation of all cross-sections of society, and especially those who are known to feel alienated or deprived, in various committees at the district and block levels which oversee and review the implementation of schemes regarding either area development, or individual/group beneficiary programmes, or provision of social services, and infrastructure development.

In addition to providing a say in developmental efforts to all sections of society, forums and opportunities for the free expression of ideas and opinions by all should also be encouraged, so that there is sufficient political space available for all sections/groups of society.

There needs to be a constant striving to ensure an equitable geographic and social spread of the benefits of all governmental programmes. In addition to this, pockets where levels of disaffection/alienation are relatively high need to be identified for the working out of special location-specific packages for the area after diagnostic analysis and identification of key gaps that exist, so as to win back the confidence of the people through effective implementation of such packages. (The Planning Commission's backward districts scheme appears to be one such attempt, and special Prime Ministerial packages for Jammu and Kashmir and the North-east seem to have similar objectives.) In fact where insurgency/extremism/terrorism has already become visible, special action plans for directly tackling the terrorism through police actions would need to be coordinated and integrated

with some special measures to provide basic minimum services, employment and income generating activities, and to ensure effective implementation. This, as has been indicated above, would need to be coupled with steps to involve the local population in the planning and implementation through panchayat bodies, or user groups, etc. However, care would also need to be taken that the people do not get the impression that resorting to violent protests and extremist/terrorist acts results in greater funds and attention as regards development efforts being provided to the particular area because this could then become a reason for the internal security of more and more areas getting disturbed, while our objective is more and more peaceful areas.

The above approach was always relevant, but with growing population, as also growing aspirations fuelled by seeing through the mass media what others have achieved, the pressures and demands on finite and/or scarce resources is increasing. Thus, unless special efforts are made to try and ensure geographical and social equity in terms of benefits delivered and development undertaken, the chances of unrest, and of such unrest being exploited by extremist groups, are much higher today than they ever were since Independence.

There is a need for ensuring that key functionaries related to internal security, regulatory (or general) administration, and development administration are accessible and responsive, as also properly oriented (through training and capacity building efforts); and then ensuring reasonably stable tenures for them.

The system of district public grievances removal committees which in many parts of the country have become moribund or routinised, needs to be revitalised—and the system of problem solving camps being organised by the government in villages and urban localities needs to be strengthened and institutionalised.

It is essential that the police function in a humane and fair manner giving no cause for disaffection. For that the regular functioning of police stations and the police beat system needs to be revived/revitalised. Similarly, the regular district administration-based system of reaching out to the local people and remote areas by the land revenue-related *Patwari/Talati* also needs to be strengthened despite the fact that over the years land revenue has lost its importance. In fact the *Patwari/Talati* and the local beat constable, as also the village level worker/gram sevak now attached to panchayat bodies have to continue to function as the eyes and ears of the government—as also the grassroots level 'cutting edge' agents of government (along, of course, with the lowermost functionaries of various developmental departments).

The local general (revenue) administration and police also need to be sensitised to respect human rights since human rights violations on the part of government functionaries can upset public order and adversely affect the internal security situation. The state functionaries also need to be openly perceived as being fair and just since if they appear to be favouring certain sections of society, then the others are likely to feel agitated and attempts by them to obtain redressal of their grievances in a just manner may lead to unrest and a disturbance in the law and order situation and even to terrorist acts. For this, in addition to orientation and training aimed at attitudinal change, a transfer policy aimed at people not being posted in their home areas where they may succumb to local societal pressures, or in areas with dominance of the caste to which they belong should be strictly followed.

It is not only the bureaucracy (including technocrats) who need to be sensitised about the possible repercussions in the internal security arena of their actions, but also politicians (whether holding office or in opposition).

In addition to functionaries like *Patwari/Talati*, gram sevak village level workers, bodies like Nehru Yuvak Kendras, Krishi Gyan Kendras, District Sports Boards, Integrated Child Development Scheme (ICDS) centres and groups like watershed committees/water users associations, which are normally not considered part of mainstream administration, may need to be used to reach out to disaffected populations in affected areas, not only with specific scheme related benefits, but also with ways to involve the youth in creative activities so as to provide them with alternatives to joining the extremists.

The absence of well-maintained and correct land records, and the non-accomplishment, in many areas, of land reforms can also contribute to social unrest and violence. Thus even if the land revenue collection role of government has ceased to be important, land revenue administration still needs to be provided pride of place in the scheme of things.

There may be need for surrender and rehabilitation packages for such youth as may have initially joined terrorism and later had a change of heart and who may now want to eschew violence. Such rehabilitation could include training and orientation, as well as self-employment opportunities, and stipends and pensions. However, care would need to be taken that the package does not become so attractive that people start feeling that to avail of the benefits of the package they should temporarily become terrorists and then surrender. At times terrorist groups get their old and infirm cadres to surrender so as to enjoy the

government benefits--thus care has to be ensured, while implementing such surrender policies, so that only surrenderees having undergone a genuine change of heart can avail of the benefits.

There are schemes, of rewards (including medals) for police, Central paramilitary force and army personnel (uniformed personnel) in case they undertake successful internal security operations. However, as we have discussed above, the achieving of internal security objectives requires the efforts of many others involved in regulatory and developmental endeavours. A system of rewards and incentives needs to be evolved for such civilian officers.

It will be noted that most of the suggestions in this piece go against the old traditional separation between development administration and regulatory and law and order administration. Normally it is seen that governmental reviews for monitoring and evaluation of developmental schemes are conducted separately from the reviews of regulatory and revenue administration, and further that law and order and crime related reviews are carried out separately. In today's context, what is called for is that, at the state level under the Chief Secretary, at the divisional level under the divisional Commissioner, and at the district level under the Collector and District Magistrate/Deputy Commissioner, integrated joint monitoring, evaluation and review meetings are held periodically (atleast once a quarter), where developmental schemes are considered from the point of view of their impact upon public order and internal security, and regulatory land revenue and law and order related activities are examined keeping in view their impact upon development schemes.

It is only thus that development and the maintenance of public order can be achieved simultaneously through appropriate measures of governance.

# **MAKING INTERDISCIPLINARITY A CORNER STONE OF OUR EDUCATION SYSTEM : TRADITIONAL ACADEMIC DISCIPLINES VERSUS INTERDISCIPLINARY FIELDS LIKE DEVELOPMENT STUDIES**

**RAKESH HOOJA**

*Social sciences are aimed at inculcating the faculties that provide humans with the means to resolve their problems in an informed and reasoned manner. Besides being soundly educated citizens we seek appropriate ethical goals: goals based on reliable knowledge about the human condition rather than on mythological absolutes; practical goals capable of being achieved by well-tested, step-by-step strategies. An interdisciplinary approach among various disciplines is aimed at arriving at workable tools for coping with the challenges presented by the explosion of technology that has resulted from the success of the physical sciences. These strategies are capable of narrowing down the now rapidly expanding gap between knowledge in the physical sciences and our capacity to organize and educate human beings to put to constructive use the technology science has spawned, and thus to impose wise direction on the curriculum evolution. Depending on one's area of specialization, the research skills and creativity developed in an interdisciplinary studies environment can be ideal preparation for a career in a range of different subjects. The article presents a path breaking approach to a sound interdisciplinary, integrated and scientific social study—possibly founded on the life sciences.*

## **INTRODUCTION**

**THE NATIONAL Knowledge Commission in its first report of October 2006 had noted the disappearing boundaries between various disciplines**

and the fact of knowledge emerging as a continuum. Accordingly, the Commission had recommended that India should set up a National Science and Social Science Foundation which would look at knowledge as one seamless entity.

In late March 2010 *The Hindu*, while reporting on a lecture delivered at the Indian Institute of Science Bangalore by Judith Rees, Director of the Grantham Research Institute on Climate Change and Environment, London School of Economics (UK), on the subject of adaptation to climate change indicated Rees' assertion that not only scientific prediction and scientific evaluation of how eco-systems react to climate change but insights into social, economic and political realities and behavioural responses were essential in the understanding of the impacts of climate change — thus correcting an impression held by many that climate change is a subject best left to the natural or physical scientists to examine.

A couple of days after the report mentioned in the previous paragraph appeared, *The Hindu* had reported on K.G. Balakrishnan, the then Chief Justice of Supreme Court of India, speaking out on the need for a strong interdisciplinary agenda in law education while addressing the Convention of the Gujarat National Law University. Justice Balakrishnan had stressed the need for law graduates to have acquired knowledge of political science, sociology, economics, history, philosophy and literature and had said that even inputs from commerce related disciplines and the natural (physical and life) sciences were essential for a person in the legal profession whether at the bar or on the bench, or as consultants and legal advisors.

Following the global economic meltdown of 2008, the quantum of the number of articles appearing in newspapers that point to the need for diverse and multiple skills amongst the products of education who enter the work force has gone up. This indicates that people educated or knowledgeable about more than one discipline or branch of a discipline are now more sought after.

#### *Need for Interdisciplinarity*

During the year 2008, the author interacted with a group of academics that he had convened at the behest of the then Governor of Rajasthan to examine the possibility, as well as desirability, of the creation of institutes or centres of Interdisciplinary social sciences and development studies in the various universities of the State which could look at real world issues and ensure interdisciplinary teaching, research and consultancy work. The Governor as Chancellor of all the State universities accordingly asked the universities to induct such interdisciplinary teaching and research.

Disaster Management, to take an example, does not fit into the confines of a typical disciplinary subject boundaries but draws from a number of

practical fields and academic disciplines, a point, one was always aware of from experience with disasters like floods and droughts while in government service, but it was brought home to the author very strongly when he was associated with disaster management related capacity building and training since no single or even two or three disciplines could provide all the inputs required for training in disaster management.

What is true about dealing with disasters is equally relevant to all other walks of life. For example a farmer is involved in many activities and numerous types of settings and relationships, all of which together result in his farming being successful. These activities and interactions of the farmer cannot in actual practice be broken into discipline by discipline segments. The farmer looks at all his activities in totality as an integrated whole, where each activity impinges on the other, and not as activities in the political, or social, or economic, or commercial, or agricultural science, spheres. Thus training or teaching farmers to improve their agriculture and livestock related activities (including the backward and forward linkages) cannot limit itself according to disciplinary boundaries.

It is perhaps this real life situation that has induced many persons possessing degrees in sociology, economics, political science, management, etc. to refer to themselves as “Development Professionals” (implying that they possess multi-disciplinary skills) while looking for work in NGOs, special purpose vehicles for public-private ventures, in international organisations, and the like.

Our civil services have from the start been “generalist” in nature which posits their having multi-disciplinary and interdisciplinary skills which have proved to be essential for performing their policy-making, plan and project formulation, implementation and regulatory, etc. duties.

There are universities today like the University of East Anglia in UK (where the author was sent mid career for one year by the government) which has a School of Development Studies (DEV) and a School of Economic and Social Studies (ECOSOC). Much of what was taught at each university in terms of theory and even practice was similar. But in DEV the focus was much more interdisciplinary and development-oriented in a holistic manner, while ECOSOC though being multi-disciplinary basically followed the conventional disciplinary boundaries. In India, JNU in Delhi follows a system of multi-disciplinary schools of study. Indian Institute of Public Administration itself has not found it prudent to limit itself to faculty who have studied public administration, but make use of faculty in a number of other disciplines who together jointly enable the Institute to meet its mandate of the furtherance of quality public administration in India.

Many universities in the West permit students to simultaneously take

courses from different faculties of study or to transfer from one faculty to another for further studies.

When the author did his Ph.D. on *Motivating Settlers in the Indira Gandhi Canal Project*, he realised that his research could not fit into any one single academic discipline and that the knowledge and approaches of a number of disciplines not only from the social sciences, but also from the natural sciences, including their applied aspects, were relevant for the thesis that he wrote. Many a researcher would have undergone a similar experience.

If we look at the objectives of education, or what education is supposed to do, we could list the following (this is a subjective list):

- (a) ensure the transfer of knowledge, create a thirst for more knowledge, and teach how to search for relevant knowledge, through libraries, websites, reference material, personal interactions, etc.;
- (b) enable to analyse, understand and think, since merely having access to knowledge or having memorised some knowledge is not enough;
- (c) make the students receptive to all sorts of ideas, views and approaches on various issues;
- (d) inculcate amongst students (and even the faculty) proper values, morals, ethical norms and the ability to either understand and internalise them or, where necessary, to question them;
- (e) enable them to function and to work effectively in the present day world to (i) function either in groups or individually (independently) since it is often said that Indians are better individual workers than team workers, (ii) function in the work place or in the home and in family/social as well as professional/business situations etc., and (iii) function in both competitive environments and in cooperative environments;
- (f) To induce students not to be, or to become, unidimensional; to help students to reach or achieve their full potential in all respects so as to put all their abilities to effective use – to help them become “complete men” / “complete women”. Thus this help should not be limited to academic matters but should also encompass personal interests, hobbies, extra-curricular activities, sports and games etc. Something similar is attempted during the four month Foundation Courses for IAS and Central Services at LBS National Academy of Administration or for State Services officers (at State Administrative Training Institutes like HCM Rajasthan State Institute of Public Administration) who are

exposed to various types of knowledge skills, activities (going much beyond job related or domain knowledge) both inside and outside the classroom:

- (g) Help in the socialisation process whereby those undergoing education can learn to adjust, conform to, and thrive within the norms of society/polity/economy;
- (h) Impart not only knowledge but also skills, values, proper attitudes, to stimulate the seeking of more knowledge and skills;
- (i) Motivate to perform well, to put in great effort, to be honest, committed and dedicated;
- (j) To perform the gate-keeping and selective functions of education – identifying those who perform better in educational institutions – but simultaneously juxtaposing this with enabling learning opportunities for all;
- (k) Prepare students for getting good jobs or admissions in higher educational institutions, to prepare them for doing well and getting good marks but simultaneously also realising that good marks are not the be-all or end-all of education: imbibing a good all-round education is more important – it is also the task of education and thus of the teacher to make students realise that marks are not everything in life;
- (l) Inculcate amongst students the ability to, after having undergone their education, respond to the unexpected, and to accordingly reinvent themselves, and their organisations, procedures and work styles as per changing situations, making the students agile and flexible;
- (m) Familiarise students with plural and multi-cultural India and with the globalised, fast moving and changing world; and
- (n) Inculcate a habit and a desire for life-long learning.

Many of the above mentioned objectives of education indicate the need to transgress disciplinary boundaries and for education to be not only multi-disciplinary but to be interdisciplinary.

What needs to be taught and researched depends upon what is considered relevant in the context of a particular country at a particular point of time. The above examples point to the fact that more and more we need to view things from an interdisciplinary perspective and that teaching and research should accordingly be based upon interdisciplinary fields of study rather than on the traditional disciplines that today make up the Physical Sciences, the Life Sciences, the Social Sciences and Humanities. This calls for changes in school and higher education and even in mid-career educational opportunities. This does not mean that the traditional disciplines

need to be abandoned or that we do not require specialists or super specialists in these disciplines. In fact new discoveries and inventions, new theories, or the validation or modification of existing theories would more often than not come from study and research in the traditional disciplines. But not every person needs to specialise in such disciplines. There are thus many (though they are presently in a minority) who today feel that traditional subjects like economics, sociology, political science, or public administration should be replaced by new disciplines or fields of study which are interdisciplinary like development studies, urban studies, rural studies, environmental studies, etc.

As the life becomes more complex, as the knowledge expands and the interrelationship between different types of knowledge is better understood, teaching and research need to become much more interdisciplinary. That would necessitate much change in the present education system at school, college and university levels and even in life-long learning opportunities.

Before looking at what should be the way forward, it is proposed to take up the issue of interdisciplinary social sciences and the need for the evolution of interdisciplinary fields like development studies as an example so as to appreciate and understand the need for such interdisciplinary focus in Indian education, teaching and research.

#### THE CASE FOR INTERDISCIPLINARY SOCIAL SCIENCE AND THE EMERGENCE OF DISCIPLINES LIKE DEVELOPMENT STUDIES

The various social science disciplines taught at universities in India, viz. political science, economics, sociology, social anthropology, geography, history, public administration etc. mostly took shape in Europe and the USA during the 18th or 19<sup>th</sup> Century. They were in response to the academic requirements at that time in those countries. Since then the world has become more complex. Different cultural and agro-climatic regions of the world have different knowledge requirements which are also influenced by the level of development that they have achieved or not achieved. Knowledge has been expanding dramatically and also assuming more interdisciplinary hues. Traditional disciplinary boundaries are losing their relevance as the social sciences have to be studied and applied in context – specific situations which may differ from one area to another and from one point of time to another.

If one visits libraries in British universities, one finds that all the books about India that normally adorn the Sociology racks in Indian libraries, are to be found in Britain in the Social Anthropology racks. This is because for them Sociology is what is relevant in their situations, their geographic and historical context.

The Social Sciences emerged primarily in the 19<sup>th</sup> Century Europe. Before that they had philosophy, law and church or religion-based knowledge (and their combinations like canonical or church law as well as religion based philosophy), languages (including literature), mathematics and, following the European renaissance, some development of scientific study pertaining to the physical and biological sciences.

In those days the educated or the intelligentsia did not confine its quest for knowledge according to disciplinary boundaries. In fact, even today the term a 'Renaissance Man' implies one who is knowledgeable and active in a diverse number of fields of activity and disciplines and the term is used today in a complementary sense to praise and appreciate the person concerned.

The Gulbenkian Commission on Restructuring of the Social Sciences, headed by Immanuel Wallerstein, titled *Open the Social Sciences* talks of the disciplinisation and professionalisation of knowledge for production of knowledge and to reproduce the producers of knowledge (teaching, scholarship, research), which led to the evolution of the Social Sciences. The Gulbenkian Commission indicates five main locales—Great Britain, France, the Germanies, Italy, and the United States where Social Science activity initially evolved, though one feels that Russia and Austria could be added to the list at least as regards Social Studies if not Social Science. Five important disciplines or subjects of social science emerged, namely history, economics, sociology, political science and anthropology. The first four became major university disciplines in the 19<sup>th</sup> century Europe and America and primarily concentrated on describing and analysing social reality in those countries, while anthropology and particuary social anthropology studied the other cultures and societies (primitive societies, colonised societies).

The particular social science disciplines and their techniques of study and research emerged due to the needs of those countries in those times, and to the opportunities for study and research available because of the level and nature of development achieved at that time in those countries, and to the level of technology available to help study and teach the new disciplines. Thus, they were contextual in nature rather than universal, though they aspired to universally applicable theories and findings. Since at that time the European countries had empires and colonies, they were also interested in area studies not only to understand their colonies but to be able to administer them in a manner that they considered appropriate and efficient as per their requirements. So, we had the case of SOAS (School of Oriental and African Studies) in London which studied the same disciplines with focus on the colonies and emphasising, for example, social anthropology,

whereas LSE (London School of Economics and Political Science) in the same city studied them in the European/British context and, for example, studying Sociology.

Somehow geography, psychology and law could not become principal components of the social sciences in the West. And, at that time, public administration had not been thought of as a separate discipline.

The introduction of new disciplines in a particular area has followed different routes.

Today economics as a discipline has assumed a single world-wide character, it was not so earlier. Economics, initially either began in the faculty of law or in the faculty of philosophy at Western universities and at one time it was called political economy. Even in today's world of econometrics and quantitative economics we do have eminent economists harping back upon philosophy – an example being Amartya Sen. However, especially in the USA economics were influenced by management and in turn management was influenced by economics.

In political science, which emerged either from law or from political philosophy – European political science emphasising history of political thought and constitutions (which initially had the most influence in India), and American political science influenced by American sociology and American systems of governance (and now dominant in India and worldwide), had different features also partially influenced by the fact that Europe had a different system of law than Anglo-Saxon Britain and USA. Russia on the other hand had a different tradition of political study. Since Indian political science initially developed from British political science we find that study of Western political philosophy and of Indian political philosophy have both been considered relevant for Indian political science. And British Political Science today differs from their Political Science of the days before India had become independent and which our political scientists of those days had imbibed.

Sociology even today has totally different dimensions in the developed West, where the industrial revolution preceded the evolution of sociology, than in a country like India where social anthropology, castes, tribes, rural areas and village societies continue to be important. (Sociology also differs from Europe to Britain to USA). Differing Marxian and non-Marxian approaches to the study of each social science discipline are known to all. In India the Bombay School of Sociology developed sociology from Indology whereas the Lucknow School of Sociology from economics. And social work and anthropology have subsequently hived off from sociology.

Public administration has primarily emerged from political science or what Americans called Government or Politics and many political science

courses in India still have papers on public administration. But we have the Rajasthan University example where originally there was a Department of Economics and Public Administration and its Department of Public Administration developed from that.

However, public administration did draw from Taylorism and the Scientific Management movement in USA of the early 1900s. In fact, Public Administration never really took off in Britain whereas, it did so in USA but there it later lost out to public management movement which is more relevant for developed countries while for developing countries like India traditional public administration is still relevant and is taught separately or as part of political science. (Management itself had emerged and evolved as a discipline in North America in the later decades of the 19<sup>th</sup> Century as per needs, at that time.) Though things have started to change and the impact of management as a field of study is being felt in the discipline of public administration, public administration still correctly continues in India to reflect its strong roots in political science and in administrative practices in government. In fact, this is perhaps a strength of Indian public administration.

But, what were all these disciplines, which fall under the category of social sciences aiming at? They were partly concerned with applied knowledge or applied research and partly with pure knowledge and pure research.

The social sciences are aimed at : (1) understanding the past, (2) understanding and documenting the present and the factors which are changing the present, (3) understanding and documenting possible changes and trends that would continue in the future including likely challenges and problems in the future, (4) to work out what should be the commonly accepted objectives for the future, what future scenarios may be possible, and which should be advocated or recommended, (5) using the understanding gained to change the present and especially the future – to devise desirable paths to reach future objectives, and (6) theory building for understanding situations and theory building to help plan for the future. (The nature of the research conducted is influenced by the aims and objectives of each social science or its sub-fields of study – and this also applies to the natural sciences thus we have empirical research, prescriptive or policy research, theory building oriented research, education — training – teaching oriented research etc.)

Some social scientists also follow another objective, a sort of hidden agenda to prove that they are relevant professionals who are scientific and thus different from ordinary analysts or general thinking people or journalists, so they develop jargon, concepts, and methods as had happened in 18<sup>th</sup>/19<sup>th</sup> century Europe when early sociologists wanted to prove that they

were different from the leaders and thinkers of social reform movements and so they developed elaborate research tools and methodologies for their work.

After World War II globally, and after Independence in the Indian context, the social sciences started becoming more comparative, change oriented, and multi-disciplinary in terms of both theory and practice. The current belief is that economic growth or even development by itself is not enough, that societal/human development cannot be segregated or broken up discipline-wise. For example a farmer or an industrialist does not compartmentalise his life discipline-wise. Thus, we now have fields of study and analysis that cut across the traditional social science disciplines – viz. management studies, development studies, rural studies, urban studies, women's studies, defense and national security studies, environmental studies, energy studies, food security studies, population studies, livelihood studies, peasant society studies and study of agrarian situations, poverty and its alleviation, water resource use and land water management, natural resource management, tribal development, desert development, participatory development, strategies to respond to globalisation, strategies and policies for optimising the benefits of scientific and technological breakthroughs, coping with climate change, infrastructure development, coping with and responding to demographic changes, government and development, civil society and development, gender and development, use of social capital in development, user groups and development, measures for infrastructure development, the social sector and development, skill development for employment and livelihoods, development planning, multi-level planning, development administration, steps to achieve Millennium Development Goals (MDGs) and human development, science, technology and development, development economics, agricultural economics, economics of urban and industrial development, development psychology, development sociology, country studies, regional studies, district studies, policy studies, futurology, the interaction between social sciences and agriculture sciences, interaction between social sciences and management, impact of international relations and international policies on development, structure of capital markets, financial institutions and development, trade and development, etc. Interdisciplinary, multi-disciplinary, and trans-disciplinary approaches have evolved leading to the question as to whether research priorities should be worked out discipline-wise or should they be issue-wise? As already indicated, many today even feel that the traditional social sciences like economics, sociology, political science or public administration should be replaced by new disciplines based on above-mentioned fields. Of course traditional disciplines are still important especially for creation or modification

of basic theories and new basic knowledge, as well as the inputs that they can provide to the newer fields of knowledge, which may be the emerging disciplines of tomorrow. We may add that a multi-disciplinary approach is based on disciplines being considered together, whereas an inter-disciplinary approach cuts across disciplinary boundaries.

The users of social science research and knowledge could be categorised as:

1. Social scientists in universities and research institutions for knowledge enhancement with the sub-category 1(a) of PhD scholars, wherein we have: (i) PhD scholars researching merely for the sake of a PhD degree; (ii) PhD scholars researching basically so as to learn how to undertake research; and (iii) PhD scholars researching so as to make major additions to the existing body of knowledge; and (iv) a combination all three of the above.
2. Government departments and agencies -- for developmental and governmental and policy purposes, with the sub-categories 2 (a) politicians and policy makers and 2 (b) the implementational bureaucracy.
3. Corporate entities – private companies, funding and financial agencies – for meeting their objectives.
4. Teaching and training institutions—for the teaching materials generated by the research.
5. Media – print and electronic journalists for use in their reportage and editorials with a sub-category 5 (a) of writers, including popular writers as well as academic or specialist writers.
6. Political parties.
7. International agencies.
8. Consultants.
9. Scientists so to ensure the social relevance of, and adoption by society (or by government) of their scientific work.
10. Even the layman is a user of social science research since social science vocabulary, jargon and even research methodologies have in some cases entered the common public and political debates and common parlance.
11. Civil society and NGOs now often make use of and employ social scientists from various disciplines.

Keeping in mind the aims and various uses of social science knowledge and the emerging fields that need to be studied, researched, acted upon and taught about, we could think of six groups of interdisciplinary themes/ activities which could make up part of development studies in India.

1. Focus on Area Development
2. Focus on certain Disadvantaged Groups
3. Focus on Human Resource Development (including Health, Nutrition Food Security, Livelihoods, Education, Employability, Demographic Change)
4. Focus on Natural Resource Management and Development
5. Focus on Provision of Basic and Minimum Services, Facilities and Infrastructure
6. Focus on Integrated Comprehensive Development.

The effort to understand the above would naturally involve cutting across the boundaries of traditional disciplines which today comprise either the social sciences or the natural sciences groups of academic subjects.

In the above context, the author has indicated below a possible scheme for a development studies course on 'Introduction to Development Studies'. (The author is grateful to his son Rakshat Hooja, who for the last few years has worked as Additional Director Minnesota Studies in International Development – MSID - Programmes in India, for providing initial inputs for this course outline).

*Introduction to Development Studies: Critical Perspectives on Theory and Practice*

This is an outline for a Semester long paper (at Masters level) it could be a full year long paper at Undergraduate level that may be offered by Universities without too much cost addition using existing and guest faculty. The scope is not very advanced but it is important for students to have a baseline level of exposure before specialised advanced studies. Credit (or optional paper status) can be offered by Departments of Economics, Political Science, Sociology, History, Public Administration, Geography, Social Work etc. very easily for such a course. This can also be a basis for a part time post graduate diploma in Development Studies.

Possible activities during a second semester have also been indicated later.

*Course Overview*

This course broadly focuses on understanding how the term "Development" has evolved and been understood by the varied actors in the field of development – multilateral institutions, the state, community-based movements/ organisations, researchers, etc and its consequences for the everyday lives of the people in the global South. It briefly identifies the competing discourses of development that emerged after World War II and attempts to unravel some of the core issues that frame "development" today – for example social capital, micro-credit, sustainability, etc and how

these issues actually translate into public policy. The course also attempts, albeit very briefly, to address the possibilities of a people-centered development that is participatory in nature and the role of actors (state, NGOs, social movements) who can make it possible.

### *Course Objectives*

- Expose students to a wide range of thinking on development and its impact on the developing world.
- Help students think about development in comparative and cross-cultural terms
- Encourage students to think critically about values and ethical issues in relation to their own role as change agents.
- Help each student to acquire specialised knowledge/perspectives in a thematic area.
- Explore issues of globalisation and neoliberalism, as well as welfarism, as these are playing out in the world and in India, and as they promote or impede “development”.
- Give students theoretical tools to critically analyse specific development problems, policies, programmes, and projects as they shall experience in their communities and agencies.
- Understand how theories and approaches to development have changed over time, and how and to what extent they can be applied in practice.
- Create the ability to adopt appropriate development paradigms and strategies by developing skill sets, strengthening research, encouraging innovation, creating effective systems of governance, etc.

### *Approach*

Development is a perplexing subject. To judge from the results, no one really knows how to do it at present. This course will give the student more questions than answers, but the questions are more important, for good answers are of little benefit if we are asking the wrong questions. The student may feel that he/she understands less about development at the end of the course than he/she did at the beginning. That’s fine. Indeed, some confusion is probably a first necessary step towards wisdom.

Given how little we understand about development, it is even more important in this class than in others that all of us be teachers and learners alike. This course is not about an instructor giving “correct” information to students or about students being able to regurgitate that information back to the instructor. Here there are no right answers. Rather, the course seeks to enhance the critical capacities of students and instructor alike. A wide variety

of opinions are welcome; controversy is the stuff of learning in this course. There is a difference between a well-reasoned, well-supported opinion and one developed with little thought and subjected to little search for substantiating evidence. This course will be successful if all its participants can think about it with compassion and intellectual rigour, not if all end up with similar ideas about development. And this means that all should feel comfortable respectfully challenging each other's points of view, including those of the instructor.

The readings and the class sessions should not be divorced in the students minds from what is going on around us or real world happenings.

## **First Semester**

### **SECTION 1:**

1. Origin and Concept of 'Development'
2. Theories of Development: Early Mainstream Perspectives (Rostow etc.)
3. Theories of Development: Early Critical Challenges (Dependency etc.)
4. Approaches to Development (Neo-Liberal and Welfarist, Human Development, Rights Based, Sustainable Development etc.)
5. Environment, Development and Sustainability
6. Gender and Development
7. Globalisation and its Impacts
8. Role of State and of Markets
9. Social Capital and Human Development
10. Poverty and Livelihoods
11. Global Trade Policies and Development
12. Role of International and National Organisations and Development
13. Health and Population
14. Micro-finance (Micro-credit), Self-help Groups and Empowerment
15. Education, Knowledge and Development

### **SECTION 2**

16. Development in India and India's Development Approach (Five Year Plans, the origin/mixed economy/ PSUs etc.)
17. Development in India: Post Liberalisation
18. Emergence of NGOs as catalyst for development in India
19. Agriculture and agrarian structure in India
20. Industry in India

- 21 Urbanisation in India
- 22 Growth of Service Sector in India
- 23 Poverty Alleviation and Employment Generation Strategies in India
- 24 Governance Systems and Development in the Indian Context.

*The second Semester can consist of three components:*

- a) What is research? Formulating a research proposal and planning for research. Practical and ethical issues in research, etc.
  - b) Methods of data collection
  - c) Data analysis techniques (Qualitative and Quantitative) and Computer Applications
  - d) Writing up and presentation of findings of research
- 2) Directed Research on a Development related subject to be in one of the identified groups of themes/ activities, i.e.
- (a) Focus on Area Development
  - (b) Focus on Certain Disadvantaged Groups
  - (c) Focus on Human Resource Development
  - (d) Focus on Natural Resource Management and Development
  - (e) Focus on Provision of Basic and Minimum Services, Facilities and Infrastructure
  - (f) Focus on Integrated Comprehensive Development

Directed Research Project is an individualised academic course consisting of a project agreed between a student and a faculty member. It permits students to work in-depth on a topic or project that takes them beyond the regular curriculum and classes. The course objectives should stress acquisition of knowledge on a specialised topic, as well as the improvement of research skills.

The research work would be preceded by a briefly taught module summarising the main issues of concern related to any one of the six groups of themes as listed above on which it is proposed to conduct the directed research.

- 3) Understanding the Ramifications and Requirements of Careers in Development Studies
- a) Development Studies and NGO work
  - b) Development Studies and Academics
  - c) Development Studies and Government Services
  - d) Development Studies and Independent Consultancies
  - e) Development Studies as a stepping stone in other careers.

The above module is one model of a development course. There can be others. Some of India's better and more progressive universities are

today developing and introducing similar courses in development studies as the one above, as also in other interdisciplinary fields. But unfortunately this trend has not become universal throughout all of Higher Education. Having explained the rationale and need for much greater focus on interdisciplinarity in our education system in the preceding pages, we now need to turn to how to bring that about in future.

#### THE WAY FORWARD

At the school level, for the time being, teaching should continue as per traditional subjects – but especially in the higher classes the teaching should also touch upon the inter-relationships between various traditional academic disciplines as well as between natural sciences and social sciences and how interdisciplinarity can be achieved either through team work involving people from different disciplines or by enabling and encouraging individuals to become more interdisciplinary in outlook.

Some Secondary and Higher Secondary Boards have stated permitting students to study a combination of subjects from different faculty streams rather than being confined to a combination from a single faculty. This should be allowed by all Secondary/Higher Secondary Boards in the country and be actively encouraged in all schools through their teachers.

At the undergraduate level the first two years should focus more on the traditional disciplines which, since they keep evolving, have still not lost their relevance. However an interdisciplinary approach should also be encouraged and some optional course work in interdisciplinary fields of studies should be encouraged and made possible. In the final year at Bachelors level, courses both in the traditional disciplines and in the interdisciplinary fields of study should be available on offer for the few students who want to go in for pure research and specialisation therein being encouraged to focus more on the traditional disciplines, while the bulk of the students should be encouraged to go in for more interdisciplinary ‘field of studies’ based learning.

At the postgraduate or Masters level the practice of the final undergraduate year should be repeated for the students interested in pure research being encouraged to take up traditional disciplines and the majority of students being encouraged to lean more towards opting for interdisciplinary fields of study even cutting across faculties, along with perhaps one or two traditional discipline based courses.

Subsequent research degrees on offer could be either interdisciplinary or mono-disciplinary. Combination courses like Medicine and Sociology, Medicine and Law, Engineering and Economics, Law and Psychology,

Management and Development Studies, Agriculture and Administration, Science-Technology and Development etc. should also be available. This would mean that professional institutes would need to become interdisciplinary or multi-faculty, or that professional courses should also be available in conventional multi-faculty Universities. Many of the better professional institutes have already started coordinating their core professional courses with those of other faculties like the teaching of literature, or sociology, economics, political science etc. social sciences with management as part of the MBA.

Such a change may not be easy to bring about. Very few higher education institutions are geared towards significantly changing from what they have been doing in the past. The bulk of the teachers also do not normally like having to undertake new learning or to re-orient their focus. Thus Councils for Interdisciplinary Teaching and Research in the Natural and Social Sciences of the sort suggested by the Knowledge Commission at the national level would be required to be set up in each state to help in a speedy transition to interdisciplinary teaching and research in each and every institution of college and higher education.

The teaching and reorientation of teachers knowledge, skills attitudes and approach (of being more interdisciplinary) would require that the teacher training system for school and college/University teachers would need to be totally reorganised and reoriented with stronger linkages than today being established between regular teaching and the institutes of teacher training and teaching of education.

Appropriate books may only be available at present for the traditional subjects and therefore largescale book writing and content development for interdisciplinary fields of study related subjects would need to be undertaken. The Council for Interdisciplinary Teaching and Research in the Natural and Social Sciences would need to be liberal in providing both writing grants for authors and publishing grants for this purpose.

This author has for the last few years been advocating learning experiences of a reasonably long duration ( 1 to 2 years at time) for the middle aged (35 to 40 years age group) as mid-career education, as well as for the much older (52 to 57 year age group). Such courses as part of life long learning are essential not only because knowledge is expanding exponentially in every sphere of life, but also because newer problems, newer challenges keep arising that have to be tackled throughout one's professional life and even later which necessitates continual upgrading of knowledge. Such courses would need to be taught in ways different from those of the conventional education system presently available to students up to the age of 27 to 30 years of age as the older experienced and mature

students would have a different type of receptability. And all such courses would need to be in interdisciplinary fields of learning and not all oriented at traditional academic discipline-wise learning for which higher research degrees are already available.

The proposed State Level Councils for Interdisciplinary Teaching and Research in the Natural and Social Sciences would need to ensure integration of interdisciplinary teaching (and research) from school to undergraduate, post graduate, doctoral, mid-career and old age levels and also with the teaching of teachers. However it is to be hoped that such Councils shall over a period of five to 10 years be able to work themselves out of a job as the institutions that they are trying to convert to interdisciplinary teaching and research would gradually internalise an ethos of interdisciplinarity and eventually would not require a Council-like body to make them follow an interdisciplinary approach, but would automatically do so themselves.

Even polytechnics and ITI type institutions should introduce an element of interdisciplinary learning in their vocational courses.

It also implies that all educational institutions having the flexibility and ability to draw up their own courses should do so at the earliest.

The approach advocated here in this article may appear to be excessively idealistic and not so practical, the author deliberately overstated his advocacy of interdisciplinarity, yet it is true that only if we aim for something ideal are we likely to achieve something resembling it in actual practice. But that there is a need for greater interdisciplinarity in education requires to be emphasised repeatedly.

Quality education for all and life-long learning needs to adopt a much more interdisciplinary approach than is being followed at present in our country.

### **Note**

This article has evolved not only from the author's experience first as a lecturer and then as a member of the IAS for 36 years but has also built upon some of his earlier writings, i.e:

- (i) "The Contextuality of Social Sciences and Social Science Research" *Management in Government*, Vol.38, Jan. – March 2007.
- (ii) "The Contextual Character of Good Governance: A View Point" in Ramesh K. Arora & R.M. Khandelwal (eds) "Good Governance: Initiatives and Impact", Paragon International Publishers, New Delhi, 2008.
- (iii) "Reflections on the Scope of Public Administration Syllabi in Today's Indian Context" in *Prashasnika*, Vol. 30, No. 1, Jan – June 2008.

- (iv) “Enhancing the Quality of Management Education” in *Management in Government*, Vol. 39, No. 2, July-Sept. 2007.
- (v) “Towards a Centre of Interdisciplinary Social Sciences and Development Studies at University Level” submitted by Rakesh Hooja, Convener Group of Academics to HE Sh. S.K. Singh Governor of Rajasthan and Chancellor of State Universities at his request, Jaipur, November 2008.
- (vi) “Need for Enhancing the Relevancy and Quality of Management Education: Some Comments” in *South Asian Journal of Socio-Political Studies* (SAJOSPS) forthcoming July-December, 2010.

## REVIEWARTICLE

### GLOBALISATION 3.0 AND RESPONDING TO IT: A REVIEWARTICLE\*

RAKESH HOOJA+

GLOBALISATION MAY be defined by the increasing ease with which people, goods, services, money, economic activities, ideas, and even epidemics or terrorism, can cross political boundaries of nation states; by heightened economic interdependence, increased connectivity between nation states and between individuals the world over, global markets in money and labour, some sort of emerging nascent global consumer culture, ideologies (extreme and not so extreme, good or not so good) spreading across countries, greater access to and use of technology, loyalty to nation states undergoing change, etc. However, not all countries or regions are equally interdependent and the impacts of globalisation are asymmetrical, that is globalisation is not global in terms of similar impacts the world over. Different countries or regions and different sections of society or sectors of a country's economy respond in different ways to various facets and impulses of globalisation. The responses are defined not only by economics or science and technology or communications , but also by politics and psychology as well as by the new business, social, political and governance models that are emerging. And despite articles like "Globalisation is an Anomaly and Its Time is Running Out: Cheap Energy and Relative Peace Helped Create a False Doctrine" (James Howard Kunstler in *The Guardian*, London, August 4, 2005). the general consensus is that globalisation, though it may undergo change as regards the details of its processes and impacts, is not a passing phase

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\*Thomas Friedman, *The World is Flat: A Short History of the Globalised World in the 21<sup>st</sup> Century*, Allen Lane, 2005, pp. X+488

+The ideas expression herein are purely personal and academic and not of the organisation where the author works. This piece was the basis for presentation-cum- discussion session organised by Rajasthan Regional Branch of IIPA and HCM Rajasthan State Institute of Public Administration Jaipur at HCMRIPA Jaipur on March 31, 2006.

Thomas L. Friedman's *The World is Flat—A Brief History of the Globalised World in the 21<sup>st</sup> Century* is amongst the much talked about books on the subject. Naturally his viewpoint is that of an American and he spends over 80 pages discussing the “quiet crisis” and the real test that America is facing due to globalisation and what he refers to as the “flattening of the World” (or the levelling of the playing field between people in different parts of the world), while he devotes only 30 pages to the developing countries in the flat world, and another 30 to how company's (many of which are American) are coping with current globalisational challenges. Remaining over 300 pages analyse the phenomenon of globalisation.

The book catalysed my thinking about some of the things that India can and should do as a response to globalisation. But before I share some of these ideas which I have been expressing in different ways at various forums in the ten months since I first went through Friedman's book, let me briefly set forth some of the things Friedman has said in his bulky volume.

Friedman states that there have been three great eras of globalisation. Globalisation 1.0 was from 1492 to about 1800 where the dynamic force for global integration was various countries and governments making use of horse power, wind power, and later steam power. Globalisation 2.0 lasted roughly from 1800 to 2000 interrupted by the Great Depression and the two World Wars. Here the various multinational companies were the driving force spearheaded by the Dutch and English joint stock companies and the Industrial Revolution, which itself was technology driven. The first half of this era was powered by falling transportation costs (due to ships, the railroad, etc.) and the second by falling telecommunication costs (thanks to telegraph, telephones, earlier mainframe computers and later PCs or personal computers, satellites, fibre optics and the World Wide Web), both based upon breakthroughs in hardware. Around the year 2000 we have entered a new era of Globalisation 3.0 based upon software and its newer applications. While the dynamic force in Globalisation 1.0 was countries globalising and in Globalisation 2.0 was companies globalising. Globalisation 3.0 is characterised by the new found power of individuals to collaborate and compete globally. Unlike Globalisation 1.0 and 2.0 when it was the countries, companies, explorers and businesses of the Western World who did most of the globalising and shaping of the system, Globalisation 3.0 is going to be driven by individuals who are much more diverse, with individuals from every corner of the world (including the non-western and non-white) being empowered.

Incidentally unlike what many Indians (who club together liberalisation, privatisation and globalisation—or what is popularly referred to as LPG- in their minds) think, globalisation is not synonymous with economic

liberalisation, which is a late 20<sup>th</sup> century concept. In fact it is the spread of ever changing technology amongst users all over the world which has a much closer link with globalisation.

Friedman suggests that Globalisation 3.0 or the flattening of the world has occurred before most of us realised it was happening (almost as if it happened while we were sleeping). He identifies the following as forces which led to it: the fall of the Berlin Wall in November 1989 that led to the end of the Cold War, Netscape going public in 1995, work flow software, open sourcing and self organising collaborative communities, the Y2K computer crisis and the beginning of outsourcing, offshoring, supply chaining, insourcing, informing through web search engines (Google, Yahoo, MSN Web search), and what Friedman calls 'steroids' or the technologies that take all the other flatteners or forms of collaboration - viz outsourcing, offshoring, open sourcing, supply chaining, insourcing, and informing—and making it possible to do each and every one of them in a way that is “digital, mobile, virtual and personal” thereby enhancing each of them. According to Friedman a triple convergence has occurred. Not only was there a complimentary convergence of the flatterers mentioned above, but this convergence of the ten flatteners begat the convergence of a set of business practices and skills and a large cadre of professionals to make use of the new practices and new technologies. The third convergence was that, even as the companies and individuals in the West started adapting to the new situation, people in countries like China, India, Russia, Eastern Europe, Latin America and Central Asia etc gained access to being able to plug and play with everyone else while sitting in their own homes.

On the one globalisation related issue that has received the most media attention and has worried politicians, as well as common citizens (particularly in Western countries) the most, Friedman asserts that ultimately outsourcing benefits both parties to the deal and both the countries involved. He admits that specific persons, companies or regions may suffer due to globalisation, but points out that that has also been true in the case of many earlier changes which have had nothing to do with globalisation. Thus he advocates “the need to think about both the opportunities and the pain”. He stands the Indian caste system concept of untouchability on its head by suggesting that every person should figure out how to make himself/herself into an ‘untouchable’—where he defines an ‘untouchable’ as one whose job cannot be outsourced. He emphasises the need for constant upgrading of skills and suggests that the education system needs to keep changing and improving continuously to keep a region and its people sufficiently competitive and adaptable in this fast changing world.

Reacting to Friedman’s book, Roberts J. Samuelson. “The World is

Still Round". *Newsweek*, July 25-Aug 1, 2005, suggested that what Friedman means by "the world is flat" is that everyone increasingly competes with everyone else on everything. And Friedman himself does use the African proverb, which mentions how even morning the gazelle wakes and starts running fast to avoid being caught by the lion, while the lion also wakes up and starts running fast because if it does not do so it will fail to catch the gazelle and starve to death. Morale of the story: every one (person, group, enterprise, community, region) in every walk of life needs to start running (competing) whenever the sun comes up.

Samuelson also suggests, in his above mentioned piece, that national politics, culture and business can overshadow globalisation. One has to agree with this view point since not every thing depends upon globalisation related cross-national inputs and much is influenced and determined by internal domestic happenings and developments. In this context Friedman indicates that the long-term opportunities and challenges that the flattening of the world (due to globalisation) puts before the United States are profound and discusses the need for a comprehensive strategy in the United States for dealing with flatism.

However all of us know from the media that not everyone in America is trying to work on strategies to avail of the opportunities being thrown up by globalisation. There are many (in America and other western countries) who are trying to block or reverse globalisation by, for example, trying to get laws enacted to check outsourcing. The recent opposition to and furore in America over a Dubai company having won a management contract for a group of ports in the United States is an example. Commenting upon it in an article in the *New York Times Magazine* of March 26, 2006 David Rieff has this to say "in retrospect globalisation's most fervent partisans and critics were both naive to imagine that geopolitics would play second fiddle to geo-economics" Like Kunstler cited earlier in this piece, Rieff also suggests that globalisation is a coherent theory for times of comparative peace and economic expansion like the 1990s.

At this point it would be appropriate to make a mention of Friedman's earlier book *The Lexus and the Olive Tree* (1999) where he *inter alia* also refers to the backlash that globalisation induces amongst those who feel left out or brutalised by it. In that book he had used the manufacturing process of the Lexus luxury car as a symbol for the benefits of technology and how technological information and ideas are seamlessly integrating countries (i.e. globalisation), while the olive tree was used as a symbol of the patches of land over whose ownership people and countries fight to the exclusion of others, as they have done for centuries. In *The World is Flat*, Friedman appears optimistic that the world is becoming more connected,

that socio-political walls are falling and that political and trade barriers are losing their relevance in a world of fast changing technology. He also feels that the world has now started moving from a primarily vertical (command and control) value-creation model to an increasingly horizontal (connect and collaborate) value-creation model. This, he says, will result in what he calls 'the great sorting out' affecting all aspects of life.

To return to the question of strategy, Friedman does not set forth a formula or a strategy of how America should act. Instead through anecdotes, the sharing of the views of people interviewed by him (after all he is a journalist) and his reflection, he builds up a picture of factors or characteristics (summary by the reviewer based on his perceptions on reading the book) which involve far-sightedness, flexibility, knowledge generation dissemination and use, innovation, collaboration and cooperation, resourcefulness, adaptability, ability to act and react speedily, use of technology and evolution of institutions and procedures and processes for such use, competitiveness and the willingness to face competition, all of which America and Americans could make use of to evolve and implement suitable strategies.

What about India? Friedman's book can leave us with a feel good glow as many of the examples of what India has managed and is achieving in this new type of world are scattered through out the book. But as Friedman says quoting Will Rogers "Even if you are on the right track, you will get run over if you just sit there". Thus one has to keep innovating, building-up skills and knowledge amongst our population as I heard the leaders and captains of India's ITeS, BPO and KPO industry repeatedly state at a recent seminar where they were concerned that if they do not keep trying to anticipate future scenarios and ensure that they were constantly upgrading, increasing capacities, improving processes, enhancing outputs both qualitative and quantitative, and keeping cost and employee attrition rates low, then their industry would lose its competitive edge to other parts of the world and that could result in the beginning of the end for them. The above holds true not only for sunrise areas like the BPO/ITes sector, but also for all sectors. Our entrepreneurs are competing not only nationally but with those all over the world—with the developed West as also with other emerging economies like that of China. Our farmers compete with those the world over as agricultural produce, whether food or fibre, as well as agricultural inputs can now be sold the world over regardless of where they are produced. With medical tourism, Indian doctors and hospitals compete with those in other countries. And a global market for professional services means that various professionals no matter where they are located compete globally.

Recent developments in India's economy seem to indicate that our school and higher education system (both in the government sector, whose contribution should not be down played, and in the private sector) is now producing people able to meet international standards and being able to compete globally for work whether on jobs or through their own self employing small and medium enterprises. (Though we are producing less of inventors and innovators and more of people to service back office operations and to provide software development support to the world.) Of course the education system, itself needing to compete internationally, cannot afford to sit back and rest savouring its present achievements; and many of us are aware of its existing short comings which we need to consciously and jointly overcome as we endeavour to provide quality education to all.

However, Friedman's book is also replete with examples of successful and well placed people having to learn new skills and knowledge as their own profession has undergone change over the years and also because with fast increases in knowledge their college education has required supplementing and upgradation. Similarly many types of industries, trades and professions have declined as the needs of the world have changed and new technologies have opened up new possibilities elsewhere and specific enterprises also fail in the market place often leaving their employees jobless with little chance of gaining re-employment on a similar job. Such people need re-education and retraining to upgrade their original education or to obtain new types of knowledge and skills. Thus, the education gained on the first 25 years of our life may not be enough and lifelong education and a second round of undergoing a major educational experience in mid life appears to be called for. This is required not only for the losers due to globalisation but also for the winners if their competitive edge is to be retained.

However, I would like to emphasise another point. Who is it that we should look to who could help our country to look ahead, anticipate future situations, and to work out appropriate strategies to take innovative steps to overcome both present and possible future challenges? It is professionals, corporate heads, managers, doctors, lawyers, scientists, academicians, researchers, government servants, politicians, agriculturists, entrepreneurs, traders, the self employed, civil society leaders, vocational workers, etc., people in various walks of life who are above the age of 40 or 45. Such people can look back to the situations faced and the successes of their youth for lessons for the future. They are experienced often learned and wise, used to exercising responsibility, taking decisions and managing or administering. It is they who can enable and facilitate those younger than them - our vast pool of youth—to contribute to the maximum of their potential.

It is they who are responsible for formulating policies and looking to their implementation. Yet their knowledge may be turning old, they may not be used to newer ways of doing things in their own professions, to the newer organisational structures (whether governmental or private) that are emerging and they may find it difficult to adapt to technological changes. People of this age group, who may be today's professional leaders, also need to upgrade their knowledge, information, education and skills. This is the third reason why education for those above 40 or 45 years of age may be as important as education for the under 25s.

In fact I feel India would be fortunate in case systems would emerge both in the government (including public sector enterprises) and in the private sector whereby young people hired in their early twenties compulsorily have to give up their job or profession at the age of 35 or so and go back for a stint of formal education for a year or two and then to re-enter the job market and search for new jobs, which they could hold at most till the age of 50 when they should again be made to go back to university for another spell of formal education which would then carry them on to the age of 65 to 70, till which age many Indians now remain fit enough for a productive life. Of course this would entail many changes in the job market and amongst the institutions that would make use of such re-educated and re-trained people.

But this would mean that a parallel education infrastructure similar to, yet better than that, which is presently available for India's youth up to the age of 25 years of age, needs to be created for older people in their mid 30s and then for those in their early 50s. We need specialised universities for the middle aged (35 to 45 years) and also universities for the older people (50 to 60 years). The courses at such specialised institutions would need to be particularly planned so as to revive the innovative spark amongst the mature middle aged and older people who come to re-educate themselves, in addition to helping in the updating of knowledge and skills. The courses would also need to shake these people out of their set ways of doing things and to make them think out-of-the-box when they go back to work. Even the degrees could be given new and different names than B.A, M.A, M.Sc, M.Phil, Ph.D awarded by the conventional universities for the young.

Building up such an educational infrastructure would be the public-private partnership that would most benefit India so that technology, organisation, education and skills can be harnessed in the most optional manner to cope with the impacts of globalisation and to take steps to develop and retain India's competitive edge in the world of today and tomorrow. It would also assist in the enhancement of what Friedman calls 'lifetime employability' for all based on lifelong learning, since it is now becoming more and more difficult

for companies and other institutions including governments to guarantee lifetime employment to their personnel.

We in India need to avail of the opportunities being offered by globalisation, and also to assess its likely adverse impacts and take preventive and corrective measures. We need to protect our economic, social, political and cultural identities, our own variations, and yet to make use of the various globalisational trends, effects and opportunities.

There is a need for policy, regulatory, developmental and institutional reforms and measures to reduce the country's vulnerability to the negative shocks of globalisation, reduce poverty, enhance food and livelihood security and yet to ensure growth and development as well as provision of services to all at least possible cost, and also to ensure enhancing the competitiveness of all the various sectors of the Indian economy and society to benefit from the opportunities being thrown up by globalisation. Indian society continues to expect welfarism particularly in the globalising and liberalising world. All this may only be possible if we have the manpower, including senior man power, equipped by repeated education to make use of the knowledge resources available or those that may get generated in the future. It is good that India has recently set up a Knowledge Commission.

Another idea that struck me in Friedman's book is that it is important whether a country, society, or institution/organisation has more memories of the past than dreams for the future. When memories exceed positive dreams about what we would like to build in the years to come, then the end is near. Thus there is a need to encourage positive life affirming dreams in society and its organisations both public and private. We need more and more forward looking people; people with experience as also an innovative spirit. Here again a system of lifelong education, as well as various efforts of the state, have a significant role to play.

We need to not only think how the era of Globalisation 3.0 shall play out, but also how to work towards a Globalisation 4.0 of our dreams.

Reading *The World is Flat* left me thinking that the present era is one of continuous, steady and speedy transformation, an age of varying and often unexpected risks, and yet a great age of opportunity - which needs to be seized with both hands.

*Education in a World of Rapid Change* by H. M. MATHUR, New Delhi, Academic Publishers, 1975, Rs. 15.

Published in 1973 but released only in 1975, Dr. Mathur's collection of essays previously published separately in various journals seeks to emphasise "the consequences of education reaching out to embrace the whole of society and the entire life span of the individual", to examine "the new goals of education; education for all and education for life". It, however, gives the appearance at times of being merely the personal testimony of the author based on his own experiences. This, however, is not by way of decrying the volume under review. But there are many gaps, some openly admitted by the author himself, for a book that proclaims "education in a world of rapid change" as its scope, especially since it has been written for 'lay reader' in whom no previous knowledge of the subject can be assumed.

In fact, as the essays were originally written for journals on education, it would be more fitting to review them as if they are meant for teachers, educationists, educational experts, and administrators and planners concerned with education. The book should prove of great value to them since each essay has its own separate theme, focus, and argument. Again one must point out that though some of the problems highlighted in the book are also prevalent in the developed countries, the book is more germane to the third world countries.

The author has given less emphasis to class room or to conventional education. A look at the contents is indicative of this. And like a true academic, he has not tried to thrust his ideas on any one, but has often raised issues, made stimulating suggestions, and left it to the reader to ponder over them.

Now to turn to two of the themes expounded by Dr. Mathur, selected on a random basis to ensure greater objectivity in assessing Dr. Mathur's collection.

In Chapter II Dr. Mathur denies the validity of the common beliefs that all investment in education is economically productive and that more and more education is one of the inevitable pre-conditions of rapid economic growth and modernisation. He points out that when Russia, U.S.A. and Britain started on the road to modernisation, the percentage of even school educated youth in those countries was marginal thus proving that even low education levels may co-exist with accelerating modernisation. However, he admits that increasing technological, and consequent organisational, complexities may have increased the need for education for successful developmental efforts.

On the other hand "providing mere formal schooling to large masses of people would not ensure success of the plans that seek

transformation of a traditional society into a modern one". The problem thus becomes, as Hari Mohanji has pointed out, "how much schooling is necessary" or "will schooling produce the desired results". This problem assumes greater importance since education competes with many other vital sectors of life for investment from meagre available resources. Then comes the problem of whether to emphasise general, or vocational education, or to give greater priority to primary, secondary or higher education, for ensuring greater, faster, development. Providing more and more education may prove dysfunctional if it alienates the recipients from their socio-cultural surroundings or if the emphasis on numbers leads to the over-extending of resources and the consequent production of indifferently educated, or even mistaught, students.

One alternative for greater development can be to train only a select few of the nation's citizens to an extremely high level of competence. The other way may be to train most, or a lot of citizens, to a level of intermediate competence and a few to the top level. Dr. Mathur rightly favours the second approach. He is also correct in believing that even though educating everyone to a certain basic level may not be optimal from the purely economic point of view, non-economic factors also have to be considered for modernisation.

Another example, and perhaps the key, of Dr. Mathur's thinking is

to be found in Chapter XII, which deals with "education permanente" or life long multi dimensional, integrated, learning. Dr. Mathur emphasises the fact that the vast and speedy expansion of knowledge leads to the education acquired at school or college becoming obsolete soon after leaving the educational institution and that complex knowledge can be acquired only by watching or through experience. Therefore, he suggests that degree/diplomas be made valid only for a limited period after which a person should perforce have to return for more education. This alternating of periods of work and of "study/leisure" (leisure is presumably being referred to here in the Aristotelean sense as free time for reflection and deliberation and self, and community-development) shall have to continue throughout one's life. Emphasis shall thus have to be given to pre-school, formal and informal, vocational, adult, out of school, and school education for people of all ages.

As an obvious corollary to this the author has suggested that the type of formal education being imparted has to undergo qualitative changes and schools have to be remoulded to suit people of all ages and backgrounds and has given details of the reforms he advocates.

Similar stimulating insights are also to be found in the other chapters. In this way all the essays in the volume under review indicate that Dr. Mathur's thinking is leading in the same direction as that of the

Unesco experts who have advocated polyvalent education centres; for most of Dr. Mathur's suggestions would fit in with the concept of polyvalency in education.

Thus Hari Mohan Mathur's collection forms a valuable part of the stream of thinking on educational reform and reorganisation.

—RAKESH HOOJA

*Trivandrum City—Report of a Household Survey* by P. K. B. NAYAR and G. NARAYANA PILLAI, Trivandrum, Department of Sociology, University of Kerala, 1975.

This is a useful study report of the Department of Sociology in Kerala University, Trivandrum, prepared by P.K.B. Nayar and G. Narayana Pillai to help formulate a project of integrated services for children and youth in the city. It was sponsored by the UNICEF to make good the gaps in the existing services found by them through an all India survey in 1969. The scheme covered fields like health, nutrition, education, pre-school services, recreation and other cultural activities including parent education rehabilitation and training of handicapped children, etc. The Centre for Urban Studies in the Indian Institute of Public Administration guided the study in Trivandrum as in several other cities in the country.

The report is divided into three parts *viz.*, city profile; household survey; and major findings. In the first part, a lot of valuable data is presented on the basis of census reports, information from local government, and special studies such as those of K.B. Nair, M.G. Madhavan and Wahab. The interesting facts are that 55.1 per cent of population in Trivandrum is non-migrant and the rest comes from the

district itself—as nearly 91 per cent of the population is born in the district. Moreover, 70 per cent of the households had two or more living rooms, 29 per cent had one and only 1 per cent had none. This certainly speaks well of the living conditions in the city, leave aside sanitary facilities and nutritional status of the children in slums and certain other backward areas.

The study initially helped project planners in selecting six contiguous wards with a population of 47,000 and an average density of 10,610 per sq. km. It would have been more significant to have given separate figures and information wardwise, or at least in groups of two to three for this area of special attention. For, unless we make micro level screening of such *social* or *natural areas* for study and research, while planning or executing an applied programme, it may not be possible to identify and diagnose a clinical situation in the initial phase. Welfare and other service centres are generally shared by neighbourhoods and, therefore, it depends where they are located and what the features of interdependence between them are. To find that 23 per cent of the city's

## BOOK NOTES

*A. O. Hume : Father of the Indian National Congress* by WILLIAM WEDDERBURN, New Delhi, Pegasus (India), 1974, Rs. 50.

Hume, the founder of the Congress is known to all, but few are aware of Hume the administrator. This re-issue after 61 years of Hume's life by Sir Wedderburn, himself a follower of Hume, and a major Indian nationalist and a leading light of the Indian National Congress in his own right, almost seems to have been written for administrators. Wedderburn wrote just after Hume's death and his purpose was to ensure that Indians continued their nationalist struggle along Hume's lines and moulded themselves into a vigilant body politic that would strengthen civic rights and contribute to the democratic development of a strong, unified and proud India. However, the book in addition to being a valuable source book (with quotes from official and private source) of modern Indian History is also a description of the Indian administrative system of those times, which still exists in its essential features. It is also a study in the organising and administering of a nascent socio-political movement.

As a trainee in the Indian Administrative Service, the reviewer cannot help envying and admiring the strenuous and comprehensive training given to Hume. And yet one cannot help heaving a sigh of relief at being spared such rigours while under training today. Hume's spell as Collector is an inspiration to all officers, while his coming into conflict with the "Simla Clique" of India's top civil brass when the Secretary to the Government of India raised the question of initiative and conscience in an officer as opposed to his becoming either an "yes man", or a routine, machinistic, pen-pusher. Hume's active interest in various hobbies in addition to his official duties (he was a leading ornithologist and later a botanist) is a challenge to all administrators who tend to limit their horizons to entering the administrative service.

The description how the 'raj' then emphasised revenue functions at the cost of agricultural development, by not letting Hume's idea of the formation of a Department of Agriculture go through, is a reminder that the man in the office at the Centre can fail to appreciate the

man in the field. The book also indicates that the British I.C.S. (or its predecessor H.E.I.C.S.) officers were more rural oriented and willing to go into the countryside than today's IAS; a regrettable development and not the only regression since then as my earlier reference to Hume's training indicates.

The latter part of the book describes Hume's endeavours to form the Indian National Congress which shows that even in Hume's life time the moderate extremist split in the Congress was there. But it describes in depth one approach to institution building and organisational mechanics and dynamics (how to organise, how to finance and how to publicise such a movement), which is thus important in political sociology and in the study of organisations.

—RAKESH HOOJA

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*Management Development—New Perspectives and View Points* Ed. by S. NEELAMEGHAM, Ludhiana, Kalyani Publishers, 1973, pages 365, Rs. 32.

This is quite a comprehensive compilation of articles on different aspects of management by a number of experts, both from the country and abroad. The volume is actually a collection of essays in honour of Prof. A. Dasgupta who has contributed considerably to the management education in this country. The

volume is thematically divided into seven sections, viz., development and training of business managers, management development in the Indian context, corporate strategy and organisation, organisational development, marketing management, accounting management, materials management and business, government and society. In a compilation of this sort the standard of contributions is bound to vary but the articles, on the whole, are of high academic quality. Apart from covering many conceptual issues as well as functional areas, the contribution of behavioural sciences and the application of quantitative methods to managerial decision-making have also received the necessary attention. The volume will undoubtedly be of use to the students of business management and public administration. The editor merits compliments for imaginative coverage of a vast area. The publishers also have done a good job as regards printing, attractive get-up as well as pricing.

—B.C. MATHER

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*Women in Contemporary India* Ed. by ALFRED DE SOUZA, Delhi, Manohar Book Agency, 1975, pages 264, Rs. 55.

The International Women's Year has provided a good opportunity for a study of the different facets of the role, position and status of women in India. The volume under consideration is a useful symposium on

## BOOK REVIEWS

*Managerial Options in India*, (Ed.) by MANISH NANDI, New Delhi, Allied Publishers Private Ltd., 1976, pp viii+117, Rs. 25.

It is a pity that managers, and even students of management tend to view the need for managerial skills mostly from the viewpoint of the industrial sector. Surely a proper managerial orientation and the use of new managerial techniques will prove efficacious even in the agricultural or community development (be it rural or urban) sectors (and here the Indian Institute of Management, Ahmedabad, and the L.B.S. National Academy of Administration, Mussoorie, are conducting valuable experiments in injecting managerial skills into budding administrators), as also in the administration of hospitals, colleges, bus termini, and, in fact, in the running of any type of organisation.

However, this issue of how appropriate managerial attributes can be developed in diverse ways to suit the varying needs of, say, the administration of a school, or the running of a printing press, or in the direction of a research institute, or a hospital, or in sports administration, or in public distribution, or in the implementation of a developmental scheme in the villages, is one which most debates on management tend to ignore. The book under review is one of that genre (though A.L. Dias's

paper encompasses a wider horizon). Atmaram Saraogi, in the first piece of the compilation under review on the 'Challenges for the Indian Manager', has emphasised the fact that the thrust of deliberations should be "towards the managerial challenges in Indian industry today" and the "three sub-themes: industrial policy and regulatory measures, incomes and wages policy, and management shortages."

Thus we find that, while editing the proceedings of a National Management Conference jointly organised by the Calcutta Management Association and the Indian Institute of Management, Calcutta, in Calcutta on December 6 and 7 1974, Manish Nandi has put before us 4 papers and 2 discussion reports on the issue of Government regulation of industry, 3 papers and 1 discussion report on an income and wages policy, 5 papers and 1 discussion report on shortages, 2 papers and 2 discussion reports of a more general nature and a tribute to Mohan Kumaramangalam.

On the issue of *laissez-faire* government versus government intervention in industry the concensus, after going into many interesting

ramifications, appears to be in favour of the mixed economy system with a plea for more imagination on the part of the regulators and a recognition of the need for managers to look beyond their micro-problems and towards a national viewpoint.

On wages, the need for a minimum wage, for wage acceleration, and wage incentives both for workers and managers, as well as the linking of wages and productivity find favour amongst the contributors and discussionists.

Shortages of raw materials, credit and inputs, infrastructure, skills and installed capacity have been discussed and managerial and general solutions like demand forecasting and inventory control suggested.

Other topics touched include social justice, technology transfer, participative-management, unemployment, efficiency optimisation, inflation, etc.

Thus the emphasis is on increasing the social awareness and social commitment of Indian managers whether they be self-employed or professionals in the public or private sector. Hence the linking of managerial and social attitudes has been emphasised and management techniques treated as a side-issue. But perhaps this is inevitable considering the

nature of the contributors to 'Managerial Options in India' (one Governor of a State, one Minister of the Government of India, one Chief Minister, fifteen top level executives of the public and private sectors, and only two faculty members from an institute of management). In contrast to their views, for the younger managerial executive and management teacher the vital issue regarding management today appears to be professionalism *versus* social commitment, *i.e.*, how are management (including statistical) techniques emphasising optimisation to be modified in such a way that greater societal as well as organisational goals are served through those techniques. For if professional managerial techniques tend to limit a manager's horizon, then perhaps the old sort of liberal-education produced generalist with experience and sound commonsense is what our country requires more than highly trained managers.

In any case the book is a welcome change because many other contemporary books, discussing management, tend to be very theoretical and jargonized, or else fact and case-study based, and tend to compartmentalise managerial issues in such a way that the broader social context often gets ignored.

—RAKESH HOOJA

*Cooperative Organisation and Management* by K.K. TAIMNI, New Delhi, WAFM Farmers Welfare Trust Society, pp. 319, Rs. 45.

The cooperative sector has been accorded an important place in our

schemes of national development and the five year plans. It was felt that

## BOOK REVIEWS

### **Making Globalisation Work: The Next Steps To Global Justice**

JOSEPH E. STIGLITZ; ALLEN LANE (an imprint of Penguin Books Ltd.), London, New Delhi, pp xxv+358, Rs. 595.00

There are those who attribute the beginning of globalisation to Christopher Columbus's voyage of 1492, while others to the still earlier journeys and writing by Marco Polo. However, nearly all are agreed that modern globalisation was well commenced by the early 1800s.

Globalisation may be defined by the increasing ease with which people, goods, services, funds, economic activities, ideas, even epidemics or terrorism, and the adverse impacts of pollution and environmental degradation, as well as the impacts and knowledge of science and technology, can cross political boundaries of countries; by heightened economic interdependence; increased connectivity between countries and between individuals the world over; global markets in money and labour; some sort of emerging nascent global consumer culture; ideologies (extreme or not so extreme, good or not so good) spreading across national boundaries; greater access to and use of science and technology; changes in the nature and sense of loyalty as regards the nation state, etc. However, not all countries or regions are equally interdependent and the impacts of globalisation are asymmetrical, that is globalisation is not global in terms of similar impacts the world over. Different countries or regions and different sections of society or sectors of a country's economy respond in different ways to various facets and impulses of globalisation. The responses are defined not only by economics, or science and technology and communications, but also by politics and psychology as well as by the new business, social, political and governance models that are emerging.

Unlike what many people assume globalisation is not synonymous with economic liberalisation, or as a noted commentator on the subject, Joseph Stiglitz puts it "globalisation should not mean the Americanisation of either economic policy or culture". Stiglitz in fact states that there is need for getting the balance right between the government and the market and suggests that the proper balance changes over time and would differ from country to country.

Recently this reviewer had the privilege to listen to a short lecture by Joseph Stiglitz. Among the points that this well known author of the book

*Globalisation and Its Discontents* (2002) (which had criticised the Washington Consensus and the manner in which IMF and Western countries were trying to push globalisation in a certain direction), made were that there have been adverse effects of globalisation in terms of increased inter country disparities and of inequality within each country; that the hope that globalisation shall make everyone better off has not become a reality; that wages have been driven down in developed countries hitting the middle and poor classes therein, but have not risen particularly in the case of unskilled workers in developing countries that unskilled people and the countries that lack in the education, knowledge and skills required to take advantage of globalisation have got left behind due to globalisation; that it is gaps of knowledge and not merely gaps of resources that today tend to separate countries that globalisation has not brought greater economic stability to all regions and countries in fact there has been greater volatility; that there are greater problems of debts and of the economic environment; that there is a lack of a development oriented intellectual property regime - in this context Stiglitz indicated that in his view many institutional mechanisms and the rules of the game are biased in favour of the western world and have made some poorer countries worse off or are creating rich countries with poor people.

All the above find mention in Stiglitz's recent book, "Making Globalisation Work". Stiglitz has used this book to recommend that (1) the developed countries should ensure that international trade is fair, (2) there should be a new approach to intellectual property and the patents regime must be so shaped to go beyond profits and to benefit the people, (3) global resources and - especially energy resources, should be administered collectively by the international community - global public goods (global peace, global health, global environment, global knowledge) would remain underprovided if this is not done, (4) developed countries should compensate developing countries for environmental services, (5) carbon emissions must be reduced and the threat of global warming tackled, (6) developed countries must pay developing countries fairly for natural resources, (7) multinational corporations should be disciplined by global institutions, (8) ODA (Overseas Development Assistance) must increase to 0.7 percent of GDP of the donors, (9) the debt burden of poor countries should be reduced and the debt moratorium extended, (10) the global financial architecture should be reformed, (11) developed countries must curb arms exports and related corruption, (12) developed countries should curtail practices that undermine democracy and should do things to support it—there should be greater effort at democratising globalisation. Stiglitz accordingly suggests that a new global social compact be implemented through the UN bodies.

Stiglitz has also been advocating growth strategies for inclusive growth,

a rethink on agriculture and rural development policies and, for a country like India, investments in infrastructure, in water, in education, in technology, in agriculture, extension services and research, and steps to ensure that knowledge reaches all individuals throughout the country.

Stiglitz concludes is that we can make globalisation work not just for the rich and the powerful, but for all people, including those in the poorest countries. He does however admit that the task will be long and arduous. He also indicates that to make globalisation work there will have to be a change of mindset and we will all need to think and act more globally rather than the existing tendency to think locally.

It is pertinent to recall that Jagdish Bhagwati's, "In Defence of Globalisation" (2004) (whose views on globalisation are often highlighted as antithetical to those of Stiglitz), stresses that globalisation has a human face and that it is a powerful force for social good, yet advocates that globalisation needs to be managed so that its fundamentally benign effects can be ensured and reinforced; that globalisation would yield better results if it is managed and that such management would have both international and domestic dimensions.

Another globalisation enthusiast Thomas Friedman (whose book, "The World is Flat - A Short History of the Globalised World in the 21<sup>st</sup> Century", 2005, this reviewer recently commented upon in a review article in Indian Journal of Public Administration April-June 2006) has discussed the need for comprehensive strategies for both individuals and countries to deal with the long term opportunities and challenges that are emerging because of the flattening of the world due to globalisation. Incidentally both Stiglitz and Friedman stress the need for continuous development and redevelopment of knowledge, skills and learning.

Thus in a way both the proponents and the opponents of globalisation are today talking about the need for conscious efforts at making globalisation work. In this context Stiglitz's recent book is a welcome read as it discusses how to steer globalisation in desirable directions so as to "make another world possible". For Stiglitz the objective of making globalisation work is democratic, equitable and sustainable development and ensuring that the fruits of growth reach out to everybody.

—RAKESH HOOJA

### **Situating Federalism: Mechanisms of Intergovernmental Relations in Canada and India**

REKHA SAXENA, Delhi, Manohar Publishers and Distributors, 2006, p.356, Rs. 795.00

Canadian Constitution in 1867 and Indian Constitution in 1950 made an

# BOOK REVIEWS

## **Federalism : An Introduction**

GEORGE ANDERSON, *Forum of Federations*, Oxford University Press, Ontario, Canada, pp. viii + 88, Canadian \$ 9.95.

Twentyeight countries, listed in the first chapter of the book under review, either call themselves federal or are generally considered to be federal. Forty per cent of the world's people live in these federations. Six of the world's 10 most populous countries and eight of the 10 largest countries by size are federations. On the other hand some relatively smaller countries are federal. Debates are going on in some other countries whether they need to adopt the federal option.

Federalism is receiving increased attention, driven by the spread of federal government, by the growth of identity politics in some countries, by new experiments in bringing formerly sovereign countries together, and by attempts to find stable governance formulas in post - conflict situations. It has proved itself in a number of long established and prosperous democracies. Federalism works best where there is broad respect for the rule of law, a culture of tolerance and accommodation between population groups, and significant elements of shared identity. Institutional arrangements can be important in achieving stability within federal countries. Thus federalism has achieved an important place in the world's tool kit for democratic government.

However, there are no easy formulas, no one recipe, for designing or understanding federal institutions. Every society is complex and its character is shaped by many factors. Comparative knowledge of various federations can help in considering how different federal arrangements might play out in a particular context. Thus, there is much to learn from comparative federalism.

In the above context the slim, 100 page, paperback book of a size which may almost fit into one's pocket, containing a concise introductory overview of federalism written primarily for practitioners of government—politicians, government officials, journalists, members of non-governmental and international organisations, and concerned citizens who have a practical interest in federalism (may be focused on federalism in their own, or in some other specific country) the students or scholars of federalism— is likely to prove of contemporary relevance as also longer term value as a

useful reference book.

Each of the 10 chapters of the book are divided into a number of sections. Each section starts with a paragraph or two in bold type that outlines the key points of the section. It is possible for someone wanting only a brief introduction to the salient aspects related to federalism to only read these brief bold type overview statements and skip the rest of the book. However, each statement in bold type is followed by a page or two amplifying the statement. In most cases a box provides examples of the experiences of a few federations in relation to the particular aspect of federalism. The illustrations have been chosen to provide a range of possibilities that have been tried out regarding each particular aspect of federalism. This reviewer, located in India, found the boxes interesting as they indicated how India compared with other federations, and particularly the countries well-known as federal, as regards various parameters, institutions and procedures related to federalism.

George Anderson has touched on the common characteristics of federalism in various countries; devolution and decentralisation in confederal, federal and unitary countries; origins and evolution of federations; the historic waves of federalism in the modern world; the suitability of federalism; sizes of federal countries and the political geometry of federalism; types of constituent units (provinces or State governments) and the social diversity of constituent units; norms and procedures for establishing and changing boundaries of constituent units; models for assigning legal powers between the federal or Central government and constituent units and varied distribution of powers; criteria for distribution of powers and dealing with conflicts over distribution of powers; asymmetry in the distribution of powers (i.e., are any particular constituent units provided special powers not assigned to all constituent units); assignment of fiscal powers including powers to raise revenues and powers to make expenditures; the spending shares between the orders or tiers of federalism; central financial transfers, both conditional and unconditional, to constituent units and whether they are used for equalisation and revenue sharing; the importance and variety of central institutions; parliamentary, presidential and mixed regimes in federal countries; the upper houses of the legislature as representative of the constituent units, principles of representation, and the powers of upper houses; the role of political parties in the practice of federalism (one party dominant democracies, two party systems, multi-party systems, relations between national level and state level constituents of political parties; national and regional parties etc.); special provisions for minorities; the constitutional basis of federalism; constitutional arbitration; constitutional amendments; role and character of the courts; rights in federal constitutions; roles of

executive and legislative branches; interdependence and interaction, institutions and process in intergovernmental relations and politics; coercive versus consultative federalism; impact of federalism on unity and diversity; accommodating demands for greater regionalism; and the question of succession.

As a reviewer one realisation on reading this book was that we in India tend to get too taken up with our own Union form of Indian federalism. Many issues and mechanisms in practice in other federations have no parallels in India while some of them could be worth thinking about or considering for our country. In fact we in India tend to be ignorant about many federal features and practices except those of the four or five well-known federal countries. Though concise, the book under review fills many such gaps in our knowledge.

It is noteworthy that a large number of the federations have systems that enable the Central government to raise a larger percentage of financial resources than the constituent provinces or states. Also the question of conditional Central financial transfers to the constituent units (like through India's Central Sector Schemes and Centrally Sponsored Schemes) is part of the discourse and debate on fiscal federalism in almost all federal countries.

The author chose not to discuss what many of us in India refer to as the third tier of federalism or local governance units at the sub-state level, except to mention while discussing types of constituent units, that some federations have constitutionalised the municipal government as a third tier (giving it less independent status than the constituent units at the state or provincial level). India fits into this description since though the 73rd and 74th Amendments have constitutionalised panchayats / municipalities, local government remains part of the State List as per the 7th Schedule of the Constitution, and states have jurisdiction over them. Since Anderson is writing from a western perspective where the difference between the rural or urban areas and between rural local bodies and urban local bodies is not so stark, and where the countries are much more urbanised—he uses the term municipal government to cover all local bodies. It also becomes obvious that local self-government is not a significant issue in most federal countries the way it is in India. They concentrate on the two tiers, i.e. Centre and states/Provinces—but then some federal countries are smaller than some Indian states and in those like Switzerland the second tier may be smaller than panchayat bodies in India.

George Anderson and the Forum of Federations have ably summarised the general principles regarding all significant features of federalism and provided examples of how many of the important federal countries have

designed their individual federal systems vis-a-vis each feature—indicating similarities and differences of approach in many of the prominent federations. The result is a concise, yet comprehensive, and thus useful, primer on federalism written in an easy-to-read and easy-to-understand style sans jargon.

—RAKESH HOOJA

### **Copyright and Trade Mark Laws Relating to Computers**

PANKAJ JAIN AND SANGEET RAI, PANDEY, Eastern Book Company, Lucknow, 2005, pp. xxiv+ 288; Rs. 285.00.

The advent of communication technology has certainly opened flood gates in bringing the people across the globe to share their intellectuality in every field across the borders without the legal restrictions of territorial sovereignty. The dissemination of information has led to the evolution of a number of ideas which in turn brought in a number of information gadgets such as computers, Compact Discs, Video Cassette Disks, I-pods, Mobile technology, Digital Technology, et.al. At the same time it has brought in many complexities in the realm of jurisprudence.

Law being a normative science, always quickly arises to the changing needs of comity of nations in order to alleviate the intensity of conflicts and to promote the harmony across the people around the globe. In that process, the Law of Intellectual Property Rights has evolved in order to lend its helping hand across the frontiers to provide solutions to the conflicts that arose out of the emergence of new technologies out of the exchange of ideas. Among the various branches of Intellectual Property Law, the Law of Copyright and the Trademark are always in the fore front to lend in their helping hand to such victims whose rights are affected adversely due to the advent of technology.

In the days of demand for computers and the flow of information that has been the order of the day, the book under review is a timely outcome to provide the legal basis in protecting the rights of copyright and trademark owners from the evil of cyber space. The book has been divided into seven chapters covering from the basic aspects of copyright and trademarks to the techno-legal provisions of both the fields. In every chapter, the authors have extensively discussed the relevant case laws and the dictums laid down by the judiciary across the frontiers. The last chapter brings out the significance of the global laws to help the rights holders of intellectual property to protect their rights from the inimical technological thefts that are caused by millions cyber pirates. The authors being young law graduates really

## BOOK REVIEWS

### **From Government to Governance : A Brief Survey of the Indian Experience**

KULDEEP MATHUR, National Book Trust, India, New Delhi, 2008, ppviii+143, Rs. 200.00 (hard bound), Rs. 45.00 (paper back).

Part of NBT's Popular Social Science series, the book under review has been written with the intention of providing an introduction to the concept of governance and to the various dimensions of the transformation of the State and public institutions in India. As the author states in his preface “policy makers stress on governance reforms for improved policy outcomes. But the precise meaning of governance is not very clear. Different meanings lead to different thrusts in proposing and executing reform agenda”. The meanings, Kuldeep Mathur points out, “range from following liberal economic policies to strengthening and reforming market institutions, building capacities of public institutions to perform, encouraging democratic participation through strengthening civil society institutions etc. Some meanings are concerned with reducing the role of the state in economic activities, others with strengthening state institutions to promote the role of the market and yet others relate to the encouragement of democracy and participation”. The author is also quick to assert that “there is no universal model of good governance. Each country has its own history and context.”

This reviewer considered this be an exceedingly promising start to a discussion on governance since he strongly believes that what constitutes good governance for one country can not be so for another country and therefore governance practices cannot be transplanted from one country to another without major adaptational transformation, and that what would be considered good governance for a country at a particular point of time in its history would not be the same for the same country at other points of time —i.e., good governance, like good government and administration, is totally contextual in nature (Rakesh Hooja “The Contextual Character of Good Governance —A Viewpoint” in Ramesh K. Arora and R.M. Khandelwal ed. *Good Governance: Initiatives and Impact*, Paragon International Publishers, New Delhi, 2008) As T.N. Chaturvedi has reminded us (Preface to T.N. Chaturvedi(ed.) *Towards Good Governance*,

IIPA, New Delhi, 1999) the search for good governance has been on in India since Independence and it needs to be a continuing exercise since good governance is a dynamic concept rather than a finished product. According to this view what was good governance for us in 1947 just after Independence, was not good governance in 1991 when economic liberalisation was being pushed in the country, and what comprised good governance in 1991 would not necessarily be good governance in today's post - 2008, financial global melt-down world of recession and stimulation packages.

However, Kuldeep Mathur's promising start is only partially sustained because, though he does eventually indicate that "in the past decade or so, the enthusiasm for the market has become subdued and there has been greater concern expressed for establishing institutions that respond to vagaries", and further that "development economists have come to recognise that good governance is not merely a matter of promoting markets or encouraging private investment" and that "stable political regimes, appropriate legal framework, conducive social institutions and social values also matter," as does democracy; Mathur devotes most of his discussion of the conceptual premises of government to neo liberal views ascendant from the 1970s in the Western World or expressed by bodies like the World Bank who see the central role of the state to encourage the free and fair play of market forces in an impartial, open and accountable manner and for whom good governance came to be associated with the capacity of the state to create a climate that attracts international capital through corporations and aid through international agencies and to provide conditions that would allow production to take place smoothly. As Mathur summarises, "Privatisation and liberalisation became the new slogans of effective government".

However, one cannot really blame Kuldeep Mathur, because most writers in India or in the West have emphasised such aspects while joining in the governance debate. Most of them have had a tendency to consider good governance to be a fixed list of attributes, and only a very few have set forth alternative view points on good governance. In fact most Indian scholars on administration and government continue to follow a New Public Management efficiency-oriented and neo-liberal approach while writing about governance and government reform even though we now know from those like Lawrence E. Lyn Jr. (Public Management Old and New, Routledge, New York and London, 2006) that even by 2006. "The New Public Management fevers have begun to subside, and the talk, now more sober and less breathless, is of governance, participatory development networks and other paradigms of public management" or

public administration.

Be that as may be, Kuldeep Mathur has quoted the World Bank's four components of good governance as policy guidelines:

- Public Sector management entails civil service reform and private sector initiations.
- Legal framework for development is about making and enforcing rules that can make a market work, such as private property rights.
- Accountability aims at strengthening the institutions to hold the government accountable, for example an ombudsman, the Auditor General, or Parliamentary Public Accounts Committee.
- Transparency and accountability are key words for the programmes that support a free media or help the government publicise statistics, such as publishing the public budget annually."

Similarly he quotes the six dimensions to construct measures of governance employed by the World Bank to rank countries on good governance:

- Voice and Accountability—measuring political, civil and human rights;
- Instability and violence —measuring the likelihood of violent threats to or changes in government, including terrorism;
- Government effectiveness—measuring the competence of the bureaucracy and the quality of public service delivery;
- Regulatory burden - measuring the incidence of market unfriendly, policies;
- Rule of law - measuring the quality of contract enforcement, the police and the courts, as well as the likelihood of crime and violence; and
- Control of corruption—measuring the exercise of public power for private gain including both petty and grand corruption and state capture.

On the perspective, of governance as identified in the literature, Mathur reproduces Stokers (1988 - full citation not provided in the book under review) summary :

- a) Governance refers to a complex set of institutions and actors that are drawn from but also beyond the government.
- b) Governance recognises the blurring of boundaries and responsibilities between and within public and private sectors for tackling social and economic issues.
- c) Governance identifies the power dependence involved in the

- relationships between institutions involved in collective action.
- d) Governance is about autonomous self-governing networks of actors.
  - e) Governance recognises the capacity to get things done which do not rest on the power of government to use its authority. It sees government as able to use new tools and techniques to steer and guide.

Kuldeep Mathur points out that the agenda for good governance is very long and complex and that reform in governance can be a matter of political contestation. For him governance is concerned with network of relations of three actors—state market and civil society, while good governance calls for improvements that touch virtually all aspects of the public sector—from institutions that set the rules of the game for economic and political interaction, to decision-making structures that determine priorities among public problems and allocate resources to respond to them, to organisations that manage administrative systems and deliver goods and services to citizens, to human resources that staff government bureaucracies, to the interface of officials and citizens in political and bureaucratic arenas.

Turning to India, Mathur reminds us that the term governance gained currency in India with the liberalisation of the Indian economy in 1991 and that the decade of the 90s saw increasing use of the term governance normally to discuss failures of the planned strategy of development. The emphasis of the Planning Commission in improving governance in the country, Mathur informs us, is on building state capacities, strengthening public service delivery mechanisms and creating effective institutions for decentralisation.

As part of his “brief survey of the Indian experience” (the sub title of the book under review) of the journey from government to governance, the author devotes one chapter each to the constitutional institutions of governance, Indian bureaucracy and administrative reforms, institutions of accountability and the issue of corruption, decentralisation and governance, government’s changing relations with the industrial corporate sector and the associations of industries and business like FICCI and CM, and to partnerships with civil society. Each chapter constitutes a good introduction to the subject in a simple style that can be understood even by the layman. In each case Kuldeep Mathur discusses the changing scenario from the post-independence, post-World War II, Nehruvian era of centralised planning, to that of Indira Gandhi and the stabilisation of a license permit raj, to the era of coalitions and post 1992 economic liberalisation, to the problems and situation in the opening years of the post-millennium decade. According Mathur briefly evaluates the performance as well as potential of each institution of governance in India.

Mathur reminds us that existing institutions should not be neglected. He provides examples indicating that fast track courts cannot ultimately take care of the ills of the criminal justice courts, nor can outsourcing take care of bureaucratic ills. The major challenge that India faces, he reminds us, is building state capacity which stems from effective institutions. Experience demonstrates that institutions cannot be imported and are culture specific. Market based solutions to problems of public systems may not be possible in all jurisdictions or be effective in serving social purpose. (In fact this reviewer is convinced that in India the belief about the need for State Welfarism has continued to persist amongst the common masses). Thus, Mathur asserts, “the movement from government to governance is not merely a task of creating new institutions but also that of refurbishing old ones. It is also of accepting that the state has to be strengthened to play a new role”.

National Book Trust has done well to bring out a book on this theme and to select a person with credentials like Kuldeep Mathur to author it. As already indicated above, Chapters two to six provide a good introduction or primer to both the formal governmental institutions and the informal networks and institutions of governance in Independent India, their nature, history, performance and changing character. The book under review complements another title from NBTs popular social science series that has been published simultaneously (Chander Prakash Bhambhri—*Democracy in India* 2008) and which looks at many of the same institutions from a democracy perspective. In fact coincidentally both Kuldeep Mathur and C.P. Bhambhri had earlier worked at University of Rajasthan at Jaipur and later at Jawaharlal Nehru University, New Delhi and both are well known in their fields, through their ideological orientations differ somewhat).

Kuldeep Mathur deserved better editing on the part of NBT. The fact that the full citation of Stoker (1998) is missing from the eight and a half page bibliography at the end of the book has already been mentioned. At least in two instances this reviewer found almost identical language and ideas being repeated a couple of pages apart, which, a good copy editor could have helped avoid. At one place serial numbers in a list have been mixed up in printing.

But despite such small blemishes, the book is both a useful and interesting read and definitely more than value for money, and thus worth purchasing.

— RAKESH HOOJA

## **Fiscal Federalism : A Comparative Introduction**

GEORGE ANDERSON, Forum of Federations, Oxford University Press, Ontario, Canada, 2010 p viii+96, Canadian \$ 11.95.

Twenty eight countries either call themselves federal or are usually considered by observers to be federal in character. Forty percent of the world's people lives in these federations. Some countries with very large territories (like Canada, USA, Brazil, Australia), others with very large populations (for example India, Pakistan, Nigeria) as well as some small countries with diverse populations (e.g. Switzerland, Belgium, Bosnia and Herzegovina) and even some island States ( Comoros, Micronesia, St. Kitts and Nevis, and the like) are all federal. Some other countries are considering whether or not to adopt federalism. No wonder federalism is receiving increased attention the world over and has achieved an important place in the world's tool kit for democratic government: and the book under review discusses one aspect of that tool kit: fiscal federalism.

Fiscal Federalism : A Comparative Introduction is a companion volume to the same author's 2008 book *Federalism : An Introduction* (reviewed in *Indian Journal of Public Administration* , Vol 55 No. 2, April – June, 2009). Both have been written in everyday, non-specialist language so as to make them accessible to intelligent lay readers . In fact the preface asserts that the book is designed to provide politicians, officials, citizens and students with a concise and non-technical overview of fiscal federalism, drawing on the relevant work of economists and political scientists, and that it is practical rather than academic in tone.

The book contains seven chapters with each chapter being divided into five to nine sections. Each section starts with a small 'capsule' paragraph in bold type giving the essential points of the section. In fact it is quite possible for someone wanting an extremely brief introduction to all the salient aspects related to fiscal federalism to only read these capsule paragraphs available in bold type and to skip the rest of the book, which basically elaborates upon and explains the capsule paragraphs. Each section also contains insert boxes which illustrate the range of federal experiences the world over related to that particular aspect, or provide key case examples. Readers located in India are likely to find the boxes interesting since they indicate how India compares with other federations, and particularly the better known amongst them, as regards various parameters, institutional mechanisms, procedures and the principles of and issues related to fiscal federalism.

As Anderson states "fiscal federalism studies the respective roles and interaction of governments within federal systems, with a particular focus on the raising, borrowing and spending of revenues. It examines the functioning of these systems and tries to provide a principled basis for evaluating them"

(p.2). He goes on to state that “the study of fiscal federalism includes the evaluation of fiscal arrangements. Evaluative criteria include economic efficiency, equity, administrative simplicity, incentives for innovation, accountability, balancing responsibilities and means, predictability and stability” (p.5).

In the above context, the book looks at the allocation of expenditure responsibilities between the federal or central government and the constituent unit governments, the distribution of taxation powers between different levels of government and the structure of tax regimes, the allocation of specific tax and revenue sources, inter-governmental sharing and transfer of revenues, regional equalisation schemes, authority over natural resource revenues, and some aspects of broader economic management, and institutional arrangements in federations.

Amongst the issues addressed are (i) who has the authority to raise various kinds of taxes in a federation?, (ii) does the allocation of taxing powers affect the actual tax policies adopted by one level of government or the other?, (iii) does the authority to raise money match expenditure responsibilities?, (iv) should rich regions be taxed to provide revenues for poorer regions?, (v) which level of government should have the right to borrow money?, (vi) do constituent unit governments have adequate authority to raise their own revenues to meet their spending responsibilities?, (vii) what arrangements are in place for the constituent units to share taxes with, or to receive transfers from, the federal government?, (viii) do federal transfers include conditions about their use, and if so, what do these imply for constituent unit autonomy, programme functioning or policy coherence?, (ix) is spending in the federation centralised or decentralised and how might this affect relationships and policies?, (x) are fiscal decisions made separately, jointly, or cooperatively?, (xi) what are the economic implications of regulatory action taken by either order of government?, (xii) is the federation marked by major tensions or consensus around revenue raising and spending?, (xiii) are there joint administrative arrangements for delivering programmes or raising revenues? and (xiv) how do federal political and fiscal arrangements affect economic performance? (The converse to the last issue, that is how do economic factors impinge on political and fiscal relations between different levels in a federal country, has received somewhat less attention from George Anderson in this book.)

Anderson also cautions the reader that there is no one best model of fiscal federalism. Each country has different requirements and thus needs its own federal arrangements; and a countries requirements, including in the fiscal sphere, can change over time.

It was interesting to note (p.17) that Switzerland, Canada, Belgium and

Germany are the federations where the federal government spends least – between 30 and 40 percent – after inter-governmental transfers, though federal government spending in most federations like India, United States, Russia, South Africa, Spain, Austria, Mexico falls within a range of 45 to 55 percent; while in Australia, Nigeria and Brazil federal spending approaches 60% though even this falls well short of the highly centralised federations of Venezuela (78 percent) and Malaysia (84 percent).

Similarly when it comes to revenue raising in various federations (p.21) in Nigeria the federal government raises over 90 percent of all revenues; federal revenues are around 90% of the total government revenues in Mexico, Russia and Malaysia, between 70 and 85 percent in Argentina, South Africa, Australia, Belgium and Brazil, between 60 to 65 percent in Germany, Austria, Spain and India, and about 55 percent in United States; only in Canada (47 percent) and Switzerland (40 percent) are federal revenues less than half of total government revenues.

Each of the basic principles of fiscal federalism along with how various countries have worked out arrangements in actual practice, and common practices to be found in a number of countries, have been explained in simple language by George Anderson in the book under review.

One did notice a mistake at page 81 of the book. When talking of how a number of federal countries get regular reviews of their federal regimes conducted through commissions, Anderson talks about India's periodic Finance and Planning Commissions, which are constituted by the Union Government, and which he indicates have been largely successful. We, in India know that while our Finance Commission is constituted periodically at regular intervals and suggests criteria to be followed in practice till the next Finance Commission meets, our Planning Commission is a continuous body that functions round the year and performs a number of functions related to both the Central Ministries and the State Governments (though it also gets Five Year Plans prepared for the country). We hope the book contains hardly any other such slips, though the author has stressed that the book would be 'road tested – by the Forum of Federations around the world to improve future editions of the book, when this matter can be addressed.

A very brief two page bibliography on fiscal federalism has been provided in the book for the benefit of those wanting to delve further in the subject. Though here I would like to refer to certain volumes brought out by the Forum of Federations (who have got the book under review prepared) through McGill Queen's University Press in Canada as part of their Global Dialogue on Federalism. These are (a) *Constitutional Origins, Structure and Change in Federal Countries* (ed.) John Kinkaid and Alan Tarr (2005), (b) *Distribution of Powers and Responsibilities in Federal Countries* (ed.)

Akhtar Majeed, Ronald L. Watts and Douglas M. Brown (2006), (c) Legislative, Executive and Judicial Governance in Federal Countries (ed.) Katy Le Roy and Cherryl Saunders (2006), (d) The Practice of Fiscal Federalism : Comparative Perspectives (ed.) Anwar Shah (2007), (e) Local Government and Metropolitan Regions in Federal Systems (ed.) Nico Steytler (2009) and related books on Political Parties and Federalism, on Foreign Policy and Federalism, and on Inter Governmental Relations in Federal Countries which are under publication. These are a must read for anyone interested in any aspect of federalism.

George Anderson and the Forum of Federations have performed a great service by making available this concise, yet comprehensive, and useful, primer on fiscal federalism written in an easy – to – read as well as easy – to – understand style with minimal use of jargon. It deserves to be widely read.

–RAKESH HOOJA

### **Right to Information and Good Governance**

RAJVIR S. DHAKA, New Delhi, 2009, p. 473, Rs. 1000.00.

In the last over six decades of the operation of the Republican Constitution in India, many of the Fundamental Rights of the citizens originally incorporated by the Constituent Assembly have been periodically constricted by Parliamentary amendments ; only two new rights have been added to the original list . The first is the “Right of Public Interest Litigation” by a judicial verdict of the Supreme Court in 1984 in the “Asiad Labour Case” filed by the Peoples’ Union for Democratic Rights (Delhi) against the Delhi Administration for its violation of the Minimum Wages Act in the case of construction labour for the Asian Games project ; the second has been the parliamentary enactment of the “Right to Information Act ( 2005)” along with a series of similar legislations by the state legislatures. These new rights are seminal in terms of their potential implications for India’s democratic politics and, in the context of the global democratic upsurge around normative concerns for human rights and public accountability as structural imperatives of ‘good governance’, these new rights constitute potential landmarks towards enabling civil society involvement in ensuring democratic governance. India’s political economy, which now has reached the dubious distinction of being among the most corrupt and criminalised states of the world inhabited by the largest number of poor, but vying to be counted as among the “great Powers”, is now a more complex paradox than its earlier western conceptualisation as a “Soft State” (Myrdall) or a “Functioning Anarchy” (Galbraith), for purposes of providing correctives.

## Preface

A Catalogue of Writings and Publications of Dr. Rakesh Hooja was brought out on 21st April Civil Services Day 2015. Since then, we have come across more of his writings and included them in this Revised Catalogue.

It is also worth mentioning here that a Book has been compiled separately of the Articles and Book Reviews, numbering more than forty written by Dr Rakesh Hooja from the year 1973 onwards. The compilation was launched on the occasion of the Fourth Dr. Rakesh Hooja Memorial Lecture held in Indian Institute of Public Administration (IIPA) on 20th November 2018 at New Delhi.

This Catalogue is a reminder of the rich legacy of Writings & Publications Rakesh has left behind as a source inspiration for moving forward.

Meenakshi Hooja  
21<sup>st</sup> April  
Civil Services Day  
2019

# **Dr. Rakesh Hooja**

( 24<sup>th</sup> Nov. 1950 – 07<sup>th</sup> Sept. 2012)

## **Introduction**

Born on 24<sup>th</sup> November, 1950 in London, U.K. Rakesh grew up to be a keen student, a dedicated civil servant and academician, a lifelong learner with a deep and enduring interest in Public Administration and over all Governance issues which remained close to his heart till the last.

His parents, mother Smt. Usha Rani, a distinguished Sculptor and father Late Shri Bhupendra Hooja, returned to India to find their foothold, first in Delhi and later in Rajasthan when Shri Hooja was allotted Rajasthan Cadre, after being selected in the Special Recruitment Exam in the IAS.

Rakesh spent his early childhood in London, Delhi, Shimla, various parts of Rajasthan and then joined Saint Xavier's Jaipur as a student from where he did his ISC in the year 1966. It was in school that he developed his fondness for games, sports, music, drama and a passion for reading and writing that over time became the hallmark of his personality; he loved books and regarded them to be the most appropriate present for giving and receiving on all occasions.

Rakesh joined University of Rajasthan for his BA Honours and MA in Political Science where he topped the University in his Masters. During College and University days, he was well known for his debating, speaking and writing skills as also for “intellectual discussions” with friends and colleagues over cups of tea. There after he was selected as a lecturer in Political Science in the University Department itself and had the opportunity to both teach and learn Political Science and Public Administration. His wide knowledge of books and references is fondly recalled by many of his students.

He joined the IAS in 1974 and was allotted the Rajasthan Cadre, and during his long service career from July 1974 to August 2010, he held numerous important assignments including Collector Jaipur and Sikar, Additional Area Development Commissioner CAD Kotah, Special Secretary Special Schemes, Director Panchayati Raj, Area Development Commissioner CAD Bikaner, Secretary CAD, CMD RIICO, Director HCM RIPA, Chairman Board of Revenue. At the Government of India Level he was Joint Secretary Jammu and Kashmir for nearly seven years. On being selected as Director IIPA, New Delhi, he took VRS from the IAS in August 2010 and served IIPA in that capacity till the last. He was fortunate to win several prizes, awards and honours during this period including State Government awards for his books on District Planning and Agricultural and Water Resources and IIPA Annual Prize of best article in Indian Journal of Public Administration (IJPA) of 2008.

As a civil servant he was always known for his integrity, honesty, fairplay, uprightness, erudition and commitment to duty and enjoyed the respect and affection of all those with whom he worked. A little reserved, but extremely considerate, he showed remarkable cool and level headedness, clarity and deep thought and understanding in his decision making and working system. He was never known to get flustered or worked up on any occasion.

His passion for writing remained unabated and being a civil servant he focused his attention on various key aspects of administration and governance and wrote in a prolific manner on District administration, Panchayati Raj and, Decentralization, Role of Collector, Water Resources, Multi level Planning, Training for Government Servants, RTI and general issues of Development and Governance. His publications, always comprehensive in nature, included more than 30 authored and edited books, 20 monographs and more than 400 articles, reviews and research papers in various journals, magazines and seminars. From his early school experience of being Editor of X rays, the prestigious school magazine, he also developed an unusual ability of Editing books, journals, magazines and newsletters and never let any opportunity go by when it came to using his Editorship pen. His penchant and love for libraries was such that he visited as many as he could in India and abroad and helped procure books and build up several of them.

He travelled widely in Rajasthan, India and abroad for various assignments, Seminars, Conferences and having had the opportunity to see administration at Grass root, District, State, National and International levels, his writing had both vertical depth and a broad horizontal spectrum, integrating issues from measurement of a khasra in a village, to participation in irrigation Management, functioning of Panchayats, civil service training, various models and forms of federal system in an increasingly globalizing world. This was a unique and distinctive feature that infused his work, thought and writings.

He maintained his Bio Data and CV in a meticulous manner reflecting his keenness for details, and so the one updated by him up to 21<sup>st</sup> June 2012 and 29<sup>th</sup> August 2012 is enclosed in a booklet, along with an interview he gave to one of the upcoming Colleges in Jaipur (while working as Chairman Board of Revenue) and which also reflects much of his background and thoughts.

His over all personality was warm, pleasant and he cared greatly for his friends, acquaintances, colleagues and family. He had sincere love and affection for his parents, was always an ideal brother for his sister Rima, an invaluable guide, support and inspiration for our sons Rajat and Rakshat and a motivational presence for Rajat's newly wedded wife Himangini. Sometimes reserved but mostly friendly none could fail to miss his endearing dimpled smile and a remarkable innocence and straight forwardness in a greatly complex world.

It was indeed a matter of pride and privilege for the family that the HCM, RIPA where Rakesh had served for nearly 4 years as Director from 2005 -2009, set up a Dr. Rakesh Hooja Public Library which was inaugurated on 6<sup>th</sup> of May, 2013 by Shri Wajahat Habibullah an illustrious Civil Servant himself. Further the family was greatly honoured by the conferment of Paul H. Appleby Award for his distinguished services to Indian Institute of Public Administration (IIPA) and to the field of Public Administration in October, 2012.

In this catalogue an effort has been made to classify Rakesh's writings subject-wise under the broad headings Public Administration, Development, Panchayati Raj, Water Resources, Governance and General. It was indeed a challenging task but at the end of the day it appears highly rewarding and satisfying that each and every writing and publication that has been enumerated in the catalogue (which is of over 460 writings) is physically available with us and this also shows how carefully Rakesh had kept his writings specially because some them are from the school, college and earlier service days including those at the LBSNAA Academy, Mussoorie. Although an attempt has been made to make the list as correct and professional as possible but there may be some errors for which one can only be forgiven. It is also possible that there may some writings which are still not readily available and as and when they become available they will be added to the list.

This catalogue is being brought out on 21<sup>st</sup> April which is the Civil Service Day, as Rakesh always looked forward to participating in the functions organized on this day.

Rakesh left us too early but such was God's will, but we hope that his scholarship, achievements and legacy of a large number of writings and thoughts will inspire students, academicians and civil servants of present and coming generations.

21<sup>st</sup> April, 2015  
Tuesday,  
Jodhpur.

Meenakshi Hooja  
& family  
11, Uniara Bagh,  
Jaipur - 302004

Writings & Publications  
of Dr. Rakesh Hooja

Subject	Books	Articles	Book Reviews	Reports/ Introductions/ Forward etc.	Count
Public Administration	09	54	15	39	117
Development	11	68	11	08	98
Panchayati Raj	02	20	08	04	34
Water Resources	11	65	08	47	131
Governance & General	03	44	13	25	85
Count	36	251	55	123	465

## Public Administration

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