



Yoginder K. Alagh: A Profile



Yoginder K. Alagh: Contributions and Career

Yoginder K. Alagh was born on February 14, 1939 in Chakwal, Punjab, in present day Pakistan.

Education and Family

He studied at Majoraja's College, Jaipur, and at the Department of Economics, University of Rajasthan, where he obtained a Masters. He then joined the University of Pennsylvania, Philadelphia, where he obtained his Ph.D in Economics and met his wife, Raksha, whom he married on June 9, 1967. They have a daughter, Tavishi and a son, Munish.

Career Highlights

After holding positions first as Instructor, and then Lecturer in Economics at the University of Pennsylvania, between 1964 and 1967, he returned to India as Assistant Professor, Indian Institute of Management, Calcutta.

Positions in India

His subsequent career in India has included a wide variety of positions in the academic world and in government:

Professor and Head, Economics Department, University of Jodhpur (1969-1970) - on Deputation.

Director, Sardar Patel Institute of Social and Economic Research, Ahmedabad (1971-1974).

Adviser, Perspective Planning, Planning Commission, Government of India, New Delhi. (1974-1980).

Executive Vice-Chairman, Narmada Planning Group, Government of Gujarat (1980-1982).

Professor of Economics & Director, Sardar Patel Institute of Economic and Social Research, Ahmedabad (1980-1982).

Chairman, Agricultural Prices Commission, Government of India, New Delhi (1982-1983). Set up its Econometrics Cell. Published reports to encourage debate.

Secretary, Ministry of Industry, Government of India, New Delhi (1983-1987). As Chairman of the Bureau of Industrial Costs and Prices, pushed through India's first round of economic reforms, including price decontrol of steel, aluminum, cement and other industries. Relaxed import controls and introduced tariff policy reform.

Member, Planning Commission, Government of India, New Delhi (1987-1990). Produced Action Plan that has since been recognized as critical in turning around India's agricultural production to record levels in 1988-90: produced India's first Agro Climatic Plan and reorganized Indian planning on an agro-climactic basis, which is now considered the basis for project and programme formulation at the regional level.

Vice Chairperson, State Planning Commission, Gujarat (1990-1992). As Minister of State.

Professor of Economics, Sardar Patel Institute of Economic and Social Research, Ahmedabad (1990-1992). Produced some of India's first regional development plans and policies.

Vice-Chancellor, Jawaharlal Nehru University, New Delhi (1992-1996). Headed India's foremost university. JNU became one of the top hundred universities in the world. Raised the University's non-government funding from zero to 25 percent of its budget. Recruited 23 scholars from the finest universities around the World. As a member of the International Rectors' Group, sponsored by New York University, pushed the University towards globalization.

Minister of State, Government of India, New Delhi (1996-1998). Appointed Cabinet member by the Prime Minister of India.

Advised and reported directly to the Prime Minister. Headed three ministries with independent charge:

- *Power*: Increased the power sector's growth rate from 3 percent to 8 percent. Monitored through Parliamentary Committee legislation for private participation in power transmission and distribution. Energy conservation legislation approved by the Cabinet.
- *Science & Technology*: Promoted research & development through an innovative government programme to match private sector R&D spending. Signed science & technology agreement with the US Secretary of Energy, and biotechnology agreement with the US Secretary of Health. Negotiated bilateral agreements with the Chinese and French governments.
- *Planning & Programme Implementation*: Had a new approach to Ninth Plan, built on economic reform, approved by the National Development Council.

Member of Parliament, Government of India, New Delhi (1996-2000). Member of the Rajya Sabha (Upper House).

Chancellor, Nagaland University, A university set up under a Central Government Act.

Chairman, Institute of Rural Management, Anand (2016-12).

Professor Emeritus and Vice Chairman, Sardar Patel Institute of Economic and Social Research, Ahmedabad

Founding Distinguished Professor of Planning, CEPT University.

Chancellor, Central University of Gujarat, A university set up under a Central Government Act.

Chairman, Institute for Human Development, New Delhi.

Professor Alagh has also served as commentator, Express Group of Newspapers and as Independent Director, Tata Chemicals Ltd, Rallis (until Feb.2014 end), Staragri, Somany Ceramics and Shree Cements, Limited

International Assignments

In the course of his career, Professor Alagh has undertaken a variety of international assignments as Chief of Mission, Expert, or Consultant with various International Organizations for periods ranging for one or two weeks to over a year. This includes work for the World Bank, Asian Development Bank, FAO, UN Headquarters, UNDP, UNCED, UNCTAD, ILO and ESCAP, and contributions to major UN reports. He also represented India at high level international conferences. Highlights include:

Member, Chair, Board of Management, SANDEE (South Asia Network of Development Economists, sponsored by World Bank).

UNESCO, Chairman of the Scientific Steering Committee of Management of Social Transformation (MOST, UNESCO's International Social Science Programme).

Global Water Partnership, Chairman, India Water Partnership of Global Water Partnership.

World Bank, Senior Consultant, Operations Evaluation Division of Office of President, Draft Report on Forestry Policy in India for exercise on World Forestry Policy.

Asian Development Bank, Invited Expert Commentator, ADB study on Asia's Agricultural Future. Organized by Peter Hazell. ADB Annual Meeting (1998-1999).

United Nations University, Tokyo, Member of the Council.

United Nations, Coordinator, with Kirit Parikh on "UN study on Sustainable Development Policies in India: 2000-2025."

India-Pakistan-Italy University Forum, Coordinator, Cooperation after Pokhran, Rome (September 1998).

Institut d'Etudes Politiques ("Science Po"), Paris, Visiting Professor, Paper on Development Policy Models in India published in Applied Economique (1995-1996).

Distinguished Shastri Lecturer, Canada.

Distinguished Fulbright Lecturer, USA (1994).

FAO/UNDP:

- Chief of Mission, FAO/UNDP, Food Security in Egypt, 3 Volume Report jointly with Mukhtar Khattab , currently Minister of Public Enterprise, Arab Republic of Egypt (1992-1994)
- Member with Y. Hayami and K. Anderson, FAO/UNDP mission to Indonesia on Agricultural Policy after GATT.

ESCAP, Consultant, Paper on Agricultural Trade of India, published in UN, Studies in Trade and Development, Vol.10, UN, New York (1994).

UN Conference on Environment and Development, Senior Advisor to Secretary General Maurice Strong, paper on Sustainable Development: Techniques for Policy Makers, published and integrated in J. Pronk and Mahabubul Haq, Sustainable Development: From Concept to Action, UNDP and UNCED (1991-1992).

Senior Fellow, World Institute of Development Economic Research, United Nations University, Helsinki, Finland (1990-1992). Published Indian Development Planning and Policy, WIDER Studies in Development Economics.

European Economic Community, Brussels, Coordinator of EEC Technology Network for South Asia, FAST Directorate of EEC.

Indian delegation to The People's Republic of China, Vice-Chairman. Represented India as part of the first high level official delegation to mainland China since the mid-1960s. Meetings with Chinese leadership, including Deng Xiaoping (1982).

Chairman, Rajiv Gandhi Foundation Teams Visit to China

FAO, Senior Economist Consultant. Drafted chapters for FAO, Agriculture Towards 2000, a global model of world agriculture (1978-1980)

Recent Expert Groups and Committees

Chairman, Expert Group on Agricultural Statistics, National Statistical Commission, 2014

Chairman Committee on Plagiarism, UGC, 2014

Chairman, Expert Group on Pulses , MOA, GOI, 2013

Chairman, Working Group on Rainfed Regions, Planning Commission, 2007

Expert Committee on Fertiliser Pricing, 2006

Chairman, Oversight Committee for Life Time Training Programmes of IAS, DOPT, Government of India, since 2006 earlier Expert Committee for Setting up Programmes.

Chairman, Advisory Committee, PGP for Public Policy, IIMA, since 2006

Expert Committee on Training of the Higher Civil Services, MOPT, GOI, 2006

Chairman, Commission on Recruitment and Training for the Higher Civil Services in India, set up by the UPSC, Report in 2002

Chairman Committee to Re-position Commission on Agricultural Costs and Prices after WTO, Government of India, 2003

Chairman, Expert Commission on WTO Adjustments in Punjab, 2003.

Professional Organizations and Awards

Member of the Board of Governors or Senate of numerous academic institutions, including: Indian Institute of Management, Calcutta; Giri Institute of Development Studies, Lucknow; National Sample Survey; Indian Council of Social Science Research; and Indian Institute of Economic Growth.

Former President, Gujarat Economic Association.

President, Vice-President and Executive Committee member, Indian Econometric Society.

Fellow, World Academy of Art and Science.

V.K.R.V.Rao Award for 1981 for outstanding research in research in Economics, awarded by the Indian Council of Social Science Research.

Member, Governing Board, International Institute of Labour Studies, International Labour Office, Geneva, 1987-93.

President, Indian Econometric Society, 1990, and Indian Society of Labour Economics, 1998.

Pugwash Member.

Visiting Fellow, WIDER, U.N. University, 1990.

Chairman, Expert Group on Cauvery Dispute, constituted by the Prime Minister of India and Consultant to the Mekong River Commission.

Senior Advisor Consultant to FAO, UNFPA, ILO, ESCAP and UNDP.

Invited as Distinguished Fulbright Lecturer and Visiting Professor at the prestigious Institute of Social and Political Studies and the Universities of Paris.

Selected publications

Books and Reports

2013, The Future of Indian Agriculture, National Book Trust, Delhi.

2013, The National Framework Law for the Water Sector; Foreword on Need and Justification, MOWR.

2009. Evaluation Report of FAO Cooperation with India: 2003-2008, Rome, FAO,

2008, State of Panchayati Raj Vol.1, Jointly with V.Bhandari and P.Misra, IRMA

2007, India's Energy Future: Problems and Prospects, Waterloo, CIGI, Working Paper, Draft, October,

2007, India's Energy Future, CIGI Draft Working Paper, published in A. Agarwal, India's Economic Future, CIGI

2006, State of the Indian Farmer: A Millennium Study, Vol1: Overview, Academic and MOA

2006, Interlinking of Rivers in India, WWF and Academic

1999, India's Forestry Sector: An Evaluation, jointly with Uma Lele, N. Singh, N.C. Saxena and K. Mitra, Washington, World Bank

1999, Globalization and Local Development: A Research Agenda, UNESCO, MOST, Occasional Paper.

1996, Man and Land: Essays in Sustainable Development, Delhi, Har Anand.

1996, Indian Development Planning and Policy, WIDER Studies in Development Economics, 1991. Reprint 1994, Reappraisal.

1991, Sustainable Development: From Concept to Action. Techniques for Planners, UNCED, Geneva.

1989, Agro-Climatic Regional Planning: An Overview, Planning Commission, New Delhi.

1988, Framework. Action Plan for Food-grain Production. New Delhi. (See Economic Survey 1989/90 of Ministry of Finance, Government of India, for Impact

1985, Some Aspects of Planning Policies in India, Govind Ballabh Pant Memorial Lecture, G.B. Pant Institute, Allahabad.

1985, Population and Development Planning, Key Note Paper for Experts Group Meeting on Population and development Planning, UNFPA, New York, January.

1983, Capital Goods of High Technological Complexity : Study of the Indian Machine Tool Industry (Jointly with P.M. Pillai, G. Murthy, D.C. Mulla & P. Pathak), UNCTAD, Geneva.

1980, Performance of ILO Research and Action Programme on Population and Employment, UNFPA, New York.

1980, Projection of Minimum Needs and Effective Consumption Demand, Development of India, PPD. Planning Commission., Government of India Press. This report presented what is called the Alagh Poverty Line which is still, unfortunately in the opinion of the author, used as poverty norm (its urban cutoff line is now recommended as the National Poverty Line)

1980, Structural Analysis of Gujarat, Punjab and Haryana Economics (Jointly with G.S. Bhalla and S.P. Kashyap), New Delhi, Allied.

1981, Public Sector Resource Flows to Agriculture (Jointly with Atul Sharma), FAO, Rome.

1979, Performance of India Agriculture (Jointly with G.S. Bhalla), Sterling

1977, Studies on the Structure of Indian Economy and Planning for Development (Jointly with PPD Officers), PPD, Planning Commission, New Delhi.

1975, Regional Aspects of Indian Industrialization, Bombay, Bombay University Press

Selected Papers

- 2012, Green Revolution, in Kaushik Basu, et.al, The New Oxford Encyclopedia of Economics, Delhi, Oxford.
- 2012, “Beyond the Twelfth Plan Approach”, Indian Journal of Agricultural Economics, March, 2012.
- 2012, “The Poverty Debate in Perspective-Moving Forward with the Tendulkar Committee”, Indian Journal of Human Development, January, 2012
- 2012, “The Future of Indian Agriculture, Summary on Sustainability” in J.Bandhopadhyay, et. al., Environmental Governance, London, Bloomsberry, pp.145-162,
- 2011, “Agriculture in A Rural Urban Continuum”, Indian Journal of Agricultural Economics, April-June 2011, pp.165-167
- 2011, “The Future of Indian Agriculture”, Indian Economic Journal, April 2011, pp.44-59
- 2010, The Food, Water, Energy Interlink ages for Sustainable Development in India, TERI, published in Special Number on Resources, Security and Governance, South Asian Survey, pp.159-178
- 2009, “Development Models: The Next Phase”, in V. Pandit, etal, Theory, Measurement and Policy, Evolving Theories in Quantitative Economics, Academic Foundation.
- 2009, Energy Sector in India – Performance, Opportunities and Promises to Keep, Paper presented at the Centre for Geopolitics of Energy and Raw Materials of Dauphine University, Paris.
- 2009, Agricultural Pricing in a WTO Economy: Policy Advice and Decisions, Economic Developments in India, No.138, Academic Foundation, New Delhi.
- 2009, “Energy and High Growth in India : Sustainability Issues”, in Manmohan Agarwal, ed., India’s Economic Future : Education, Technology, Energy and Environment, Centre for International Governance Innovation (CIGI), Canada, Social

Science Press and Basic Books.

2008, "India in G 20", in J.Kirton and Madeleine Cross, ed., G20 at Ten, Toronto, G 8 Institute.

2008, "Diplomacy and the G 20: Preface", in A.Cooper and A.Anteciwiez, Emerging Powers in Global Governance, Waterloo, Centre for International Governance Innovation (CIGI).

2008, "Education and Skills in the Eleventh Plan", Indian Journal of Labour Economics, March 2008, pp.25-30: Inaugural Address to Annual Conference.

2008, "From Employment Planning to Employment Policies", in J.Krishnamurty and R.P.Mamgain, Growth, Employment and Labour Markets, pp.163-186.

2008, Gujarat: Perspectives of the Future, Foreword, pp.pp.15-22, Delhi, Academic Foundation.

2008, "Demographic Dividend: Possibilities and Realities", in Iskandar Simorangkir, ed., Global Imbalances and their Impacts on Emerging Market Economies, Denpasar, Bali IMF, Asian Development Bank Indonesia, pp.310-316

2008, "Economic Policy Accrual Accounting and Regional Growth", in A.K.Singh, ed., Twelfth Finance Commission: Recommendations and Implications, Delhi, APH, pp.38-53.

2008, "Macro Models of the Indian Economy: From Command Economy to Behaviourial Studies", in N.Jayaram and R.S.Deshpande, ed., Footprints of Change;Essays in the Honour of Prof. V.K.R.V. Rao, Academic Foundation pp.53-80

2006, "Community Organisations in the Eleventh Plan", SK Dey Centenary Lecture, Journal of Rural Development.

2006, "India 2020", Journal of Quantitative Economics, pp.1-14

2006, "Indian Economic Strategies After Doha" in R. Radhakrishna, et.al., ed., India in A Globalising World: Essays in the Honour of C.H. Hanumantha Rao, Academic, pp.205-232.

2005, "Development Policy and Governance", Indian Economic Journal, April-June 2005, pp.3-13.

2004, "Policy without Theory, India in a Globalizing World", Economic and Political Weekly, April 24, pp.1748-1753.

2004, Chairman's Report on Visit to China, Rajiv Gandhi Foundation.

2004, "Our Common Future", in Sayuri Shirai (ed.), Working Paper, 29 of 21st Century Center of Excellence, Program, KEIO University, Tokyo.

2002, Agricultural Investment Strategies: Prioritizing Land and Water, in FAO, pp. 67-78

2002, "Development and Governance", Keynote Address, in Hans vanGinkel and R. Thakur (ed.), Embracing the Millenium: Perspectives and Challenges, Tokyo, UNU Press, UNU Millennium Series, pp. 73-84.

2002, "Emerging Institutions and Organisations: Some Aspects of Sustainable Rural Development", in Lok Sabha Secretariat, Fifty Years of Indian Parliament, New Delhi, Lok Sabha Secretariat, pp. 491-504.

2002, "Technology Policies and Investment Strategies", in Braga de Macedo and Tadao Chino, Technology and Poverty Reduction in Asia and the Pacific, OECD, Development Centre, Paris, pp. 167-184

2002, "Water Security: An Interdisciplinary Agenda", in A.Ruijters and H.vanRinsum, More on MOST, Hague, UNESCO Commission, pp.19-45

2002, "Water: Source of Food Security", World Food Day Lecture, Bangkok, FAO.

2001, "Committee of Experts for Legislation to Incorporate Cooperatives as Companies", in Statement of Objects and Reasons, The Companies Second Amendment Bill, 2001, Bill no. 88 of 2001, pp. 25-26.

2001, "Development and Governance", in Hans van Ginkel and Ramesh Thakur, UNU Millennium Series: Embracing the Millennium, pp. 73-84.

2000, "Global Sustainable Future and Developing Countries", in Fu chen Lo, H. Tokuda and N.S.Cooray, (Ed.) The Sustainable Future of the Global System, Tokyo, OECD-UNU, Ch.19, pp.323-333.

2000, Sustainable Development: India 2020, Tokyo, UNU/IAS.

1999, "India's Agricultural Trade", Indian Economic Journal, First Dantwala Memorial Lecture.

1999, "Presidential Address", Indian Journal of Labour Economics, January, 1999.

1996, "The Theory of Not Hastening Slowly," Indian Journal of Labour Economics, Vol. 41, No. 1, p. 3.

1995, "Development Models: The Next Phase" in BLS Prakasa Rao (ed.) Statistics and its Applications, Mahalanobis Memorial Volume, Indian National Science Academy, New Delhi pp133-156, and reprinted in Indian Journal of Pure and Applied Mathematics, June, pp.617-641.

1995, "India's Agricultural Trade with the Asian and Pacific Regions", in Assessing the Potential and Direction of Agricultural Trade within the ESCAP Region, Studies in Trade and Investment, Vol. 10, New York, UN, pp 225-235

1995, "Development Models: The Next Phase" , Sankhya, Series A ,Indian Journal of Pure and Applied Mathematics, Vol.26, No.6 reprinted in B.L.S.Rao, Statistics and its Applications, Essays in Honour of P.C.Mahalanobis, New Delhi, Indian National Science Academy.

1995, "India's Agricultural Trade with the ESCAP Region", in U.N., ESCAP, Agricultural Trade in the ESCAP Region, New York, U.N.

1992, "Growth Performance of the Indian Economy 1950-89: Problems of Employment and Poverty", The Developing Economies, Vol.30, No.2, pp.97-116.

1991, Sustainable Development, From Concept to Action: Techniques for Planners, UNCED.

1988, "The Newly Industrialising Economies and India", Asian Development Review, Vol.7, No.2

1988, "The Next Phase of Indian Agriculture" Thomas Parry Lecture.

1987, "Regional Dimension of Indian Agriculture" in G. Papanek and R Lucas ed, The Indian Economy, London, Oxford.

1987, "Employment and Structural Change in the Indian Economy" in R. Ahmed ed., Human Resources Planning, ILO, ARTEP, Geneva.

1987, "Government and Public Enterprises Pricing Policies in India" in International Centre for Public Enterprises in Developing Countries, State, Public Enterprises and the Market Place in Developing Countries, Ljubljana, Quarterly Journal of Public Enterprises, Vol. 7, Nos. 3-4, pp. 243-254.

1986, "Indian Planning - Sectoral and Regional Strategies" in P. Brahmananda and V.R. Panchmukhi, ed. Indian Economy, International Economic Association, World Economic Congress.

1986, Some Aspects of Planning Policies in India , Kolkata, Vohra

1984, "Policy Modeling for Planning in India" in E.Thorbecks, et.al. ed., The Modelling of Socio-Economic Planning Processes, Aldershort, Gower, pp. 59-90.

1982, "Agricultural Development Planning and Policies" in the ESCAP Region, UN, Planning in Selected Countries of Asia. UN, ESCAP, pp.16-28.

1982, "Indian Industrialization: Regional Structure and Planning Choices", Jointly with S.P.B. Kashyap, J.Shah and D.Awasthi, Indian Statistical Institute : Review of Indian Planning Process, Golden Jubilee Seminar on Indian Economy, ISI, 1986.

1980, "Indian Planning in the Eighties" Economic and Political Weekly, Annual Number.

1980, "Growth of Crop Production: Is it Decelerating" *Journal of Agricultural Economics*. April 1980, pp. 110-117.

1979, "Labour Absorption in Indian Agriculture" (Jointly with Amit Bhaduri and G.S. Bhalla) in ILO, ARTEP, *Labour Absorption in Indian Agriculture*.

1977, "Research Methodology in Economics" ICSSR, *A Survey of Research in Economics*, Vol I.

1971. "Interregional Industrial Structure: A Conceptual Frame with a Case Study", *Journal of Regional Science*, jointly with K.K.Subrahmaniam and S.P.Kashyap, Vol. 11, No. 3, pp. 301-316.

On Yoginder. K. Alagh's Work

Selected papers written by Yoginder Alagh have been divided in four groups:

Structural Essays. These are analytical and in many cases quantitative. Many were controversial or side stepped when formulated, but accepted, at least in part later.

Essays on Sustainability. These relate largely to non renewable resources, linked to global debates but with an Indian perspective. The themes are work, land, water, energy, technology and institutions.

Essays on Agriculture and Rural Development.

Essays on Technology and Governance.

[Structural Essays: Strategic Policy and Plan Models in the Liberalisation Phase](#)

Early Origins

Beginning with the work that the Sardar Patel Institute did with regional input output and planning models, Alagh's early work was on food self reliance in the Seventies and the use of the PPD/JNU Bhalla Alagh District studies for the Agricultural sub models of the Indian Plans.

Alagh subsequently sets his work in the context of the considerable discomfort in India with the received plan models in the Eighties and awareness that newer tools of strategic policy making were required. The received models were of closed economies, prices were not a part, the intervention variables were largely quantitative and more generally behavioral relations were not a part of the arguments (see Alagh, 1991, Ch.4 for a description).

Fashionable at that time, the Bretton Woods orthodoxy was a big bang structural reform. This consisted of abolition of quantitative controls, reduction of tariff rates, elimination of fiscal deficits and abolition of any special policies for employment and regional balance. There were four central rules. The central rules were abolish all quantitative interventions in output investment and trade markets; introduce Tariffs instead and then reduce their levels and spread; abolish interventions in exchange markets; do not intervene for employment or regional development objectives. (See Mohsin Khan, IMF, 1990, for a concise and elegant testable statement of the rules). These rules were to be applied to all countries at all times, irrespective of size or initial conditions.

In fact Mohsin Khan, the Chief Economist of the IMF had given a presentation of the early versions at a Seminar organized by Prof Rehman Sobhan, present at this meeting, at the BIDS at Dhaka and Alagh was asked to write the story of Indian reform there, as a counterfactual. The Sri Lankan economist and policy maker, Lal Jayawardene was, a few months later, to describe his paper at this meeting as follows;

“At a Conference on Structural Adjustment Policies organized by WIDER, jointly with the UNDP and the World Bank, earlier this year at the Bangla Desh Institute of Development Studies in Dhaka, Dr.Yoginder.K.Alagh presented a paper and a framework of ideas which carried forward a view that a number of WIDER studies had proposed, namely that markets and policies have to be integrated into a plan incorporating social priorities. Dr. Alagh had argued at Dhaka that concepts like domestic and resource costs, effective rates of protection, and long range marginal cost could all be used to develop tariff, tax and dual pricing policies for priority sectors as a concomitant to a plan. He argued that it would not be necessary to implement plans through quantitative allocation mechanisms. Professor Lance Taylor of M.I.T. who functions as the Research Adviser for the WIDER Project on Stabilization Experience and Medium Term Development Strategies, and was present at Dhaka, described Dr. Alagh’s approach as leading to the construction of a socially relevant plan and prescription of policies for it.” (Lal Jayawardene,1991,p.v).

Given the large number of countries listed in Mohsin Khan's paper, which had accepted the IMF/World Bank Structural Adjustment Programme, the reasoning was obviously influential. This was so even in countries which had not accepted the Programme like India. But apart from the fact that countries like India held out, there was a contrary intellectual tradition, which was later to resurrect itself after the East Asian Crises when the Bretton Woods institutions were also to change their stance to a great extent, as also the later financial institutions crisis of 2008. The dominant view in India was always a part of this latter tradition, although there was always debate around it.

India since the mid-seventies did not have a mercantilist or fixed exchange rate policy, with the rupee pegged to a basket of currencies. The floating of the Indian rupee by linking it with a basket of currencies goes back to the mid seventies, when controls on industry were relaxed, but such reform excluded monopoly and foreign companies and small firms were protected. In fact some commentators think of the mid Seventies as the break with earlier stagnation. Kaushik Basu argues this on the basis of an analysis of savings rates, as also the Canadian political economy commentator (Baldev Raj Nayyar, 2007). Y.K.Alagh argued this on the basis of Savings rate, a break in Public investment stagnation from the mid Sixties and the beginning of monetary and industrial reform (Alagh,1987).

The Bretton Woods policies led to abortion of growth processes in many countries. Studies after the East Asian crises (See Aziz Iwan's description of Indonesia, in UNU, 2000, 2003 and Jomo, 2000) reinforced the somewhat stark manner in which Gert Rosenthal described the lost decades of growth in Latin America and the Caribbean in his by now famous ECLA Reports (as a sample see ECLA, 1991). Similar experiences were recorded, for example for Africa (See Gerry Helleiner, 1986). These studies and the more dramatic UNICEF descriptions of stunted generations, did not lead to dramatic questioning of the underlying paradigms. But there developed considerable interest in alternative ways of integration with the global economy. It is here that there was interest in India's experience.

Early Reform Strategies

In India, the mid-eighties saw the first transition from a regime with output, investment, technology and import control at the commodity level to a regime which would use fiscal and not quantitative controls. In 1985, India designed an extensive programme of reform emphasizing internal competition initially. In the mid-eighties around two thirds of organized Indian industry was removed from price and quantitative controls to tax and tariff rate interventions. From firm level controls the economy moved to industry level interventions with strong schemes of incentives and disincentives. These would discriminate between industries, but not between firms. It is here that the Indians developed an alternate pattern. The policy framework was seen as a transitional regime, leading later in the early nineties to uniform and low tariff rates and freely convertible exchange rates.

Alagh (see Alagh, WIDER 1991) argued that in a partially reforming economy, if your input supplier has not been subjected to competition, even if you are efficient, you will make losses, because your global competitor gets components and equipment at cheaper prices, or his interest costs are lower. There was a harmonization problem in the sense that in a liberalizing economy an efficient processor with DRCs less than one could be financially unprofitable with respect to a competitor abroad if his domestic input suppliers get higher protection. This was the negative protection case as measured for example for the Indian machine tool industry at that stage. (For the econometric and analytical work in relation to this kind of policy mind set, see Alagh, 1991). This was a powerful argument for sequencing reform. Clusters of interrelated industries would need to be reformed together and tariff policies would need to be determined in an optimal manner taking these configurations into account. The Indians were seen in some of the literature as following this path, sequencing and phasing their reform.

By this time the growth debilitating aspect of a Bretton Woods structural reform was documented showing negative growth for over a decade and alternatives models of globalisation were being discussed. The Indian example was seen as a counterfactual. Lance Taylor in a fairly widely quoted paper described an MPS (Multifaceted Price System) as a “transition from an administered towards a market regime.” (L. Taylor, MIT, 1991, p.7.) He gave the Polish and Indian examples

and said that “it’s homely virtues are perhaps becoming more evident.” (Ibid., p.7.) He also credited the Indians for transitional regimes “developing effective multi-tiered pricing systems for their nationalised firms and even in agriculture (Alagh,1991).” (Taylor, Ibid., p.38 : the reference in Taylor here is to Alagh,1991, WIDER). Taylor in his review of the post socialist transition from a global development economics point of view was basically arguing that the Indians had switched industry successfully from firm level controls to an industry level efficiency policy, linked with economy level strategic objectives. “The Theory of a Multi-Faceted Price System” advocated the Indian and the present authors perception that in the transitional stage, dual pricing, threat of imports and set-off could all be used, for limited periods of time, in such a policy regime. Policy then has a level playing objective, so that the transition to a global economy, is knowledge based and without avoidable human costs.

Later Robert Wade in his well known World Politics Paper on East Asia’s Economic Success was to quote Indian perspectives on South Korea in his famous justification of ‘strategic trade theory’. Wade begins and ends his paper with a reference to an Indian description of South Korea’s policy perspectives in the early phases of industrialisation. (See R. Wade, 1992, p.270 and p.320.)The reference by Wade to a South Korean perspective from Y. K. Alagh’s view from South Asia in the Asian Development Review (Alagh, 1989) became a widely cited part of the strategic trade theory literature. For example John Stopford was to place this experience in a larger strategic global political economy perspective and draw management implications for the global firm from it. (Stopford, Carnegie Mellon, 1994, p.5). This was reported in a Working Paper of UNESCO’s MOST Programme (Management of Social Transformation), which together with a paper by R.Ricupero,(1992) got a certain amount of attention (Alagh, 2000).

Global Perspectives after the Meltdowns

In a set of papers for the ADB, commissioned by the present President of the Bank of Japan, President Kuroda, when he was President ADB, Alagh argued that the world gets to interesting turning points at the time of global meltdowns, as in 1997/99 or 2008/09. Just like at the beginning of the decade of the nineties before Rio, there gets to be an air of questioning, at the end of the last decade of the Nineties the East Asian melt down, and more recently after 2008 the more recent financial crises leads to an atmosphere of expectation from ideas. Why do such periods emerge? The work of earlier scholars on the uneven nature of development in the Eighties and early nineties did not lead to many questions. The East Asian meltdown did (See Ricupero, 1999 for a description). This by itself is a phenomenon which needs some exploration, as a manifestation of power and global discourse. It is not human misery but a disruption of global processes which leads to demands for change, even though an understanding of underdevelopment may be a requirement, Alagh argues. Not only the East Asian meltdown, but in the beginning of the last decade the experience of a global think tank which worked on behalf of the liberal Canadian Prime Minister Paul Martin and of which Alagh was a part was mandated to work on the then out of the box idea that India and China should be a part of the Heads of State global dialogues like the G20 and the G8. One of the issues perceived then, which Alagh traces originally to the Canadians, although popular perception gives the credit to the BRICS study of Goldman Sachs, was that India and China are large economies, larger than many of the G8 economies (John Kirton, 2003). Barry Carin and Gordon Smith and Colin Bradford wrote on the larger global paradigms at play, but also on the business cycle and how India and China would have to be a part of the amelioration process. Carin and Smith say in 2003, 'despite the history of business cycles and innovations, it is hard to imagine that cycles are a past phenomenon' (Barry Carin and Gordon Smith in John English, Andy Cooper and R. Thakur, 2005, p.32) and Colin Bradford writes on 'Chronic Instability' (J.English, *Ibid.*, pp. 47-48) also in the same volume the paper by Alagh (*Ibid.*, pp.169, 172-175). But in the period 2003/05 it was not acceptable to talk of down turns and the argument was largely ignored in the G8/G20 debates on the subject then.

Past experience is also that such periods do not lead to gain for the developing world unless there is an attempt at improved understanding of the context in which they exist and even then genuine change is not easy. The statements on

comprehensive development frameworks and partnerships were promising and anyway the developing world had no 'real options' to such dialogue. There were some very profound reasons to give content to such statements, deconstruct them as they were and rebuild them so they do not remain empty boxes. It is interesting that in recent G20/G8 meetings there is a recognition of these issues at an analytical level but the analysis of global institutions is thin.

Partnerships require level playing fields and comprehensive frameworks, have to function at the cutting edge if they are not to degenerate into slogans. The argument Alagh builds up is that theory has to relate with the current nature of developments in industry and technology and with macro and trade questions. He also argues that the discourse has to be that of the quantum jumps from the angle of the developing world. However, it is set in incremental terms and this makes it basically unequal.

The Indians, for example, continue with a strategy of working for capital account convertibility of the rupee, since it is already convertible on current account. While the interest rate is declining, bringing it to global levels, through macro reform, faster export growth and exchange reserves, are seen as the preconditions. A strategic view means that India is not willing to dilute the earlier objectives, now even when global capital markets are under question. The interesting question, however, is that while the objective has been stated, there is very little solid work on the transitional regimes to achieve it. It is reported that M. S. Ahluwalia has used open economy macro economy identities to show the investment depressing crowding out effects of fiscal deficits. One may or may not agree with this conclusion, but Ahluwalia raises issues in an analytical context. In an earlier model Abhijit Sen had worked with crowding in identities in a Taylor model applied to India. (See Sen's paper in L. Taylor, 1988).

While revenue deficits have to be reduced, whether in an open macro economy context, reduction of the fiscal deficit will lead to crowding in or crowding out of investment is an extremely crucial issue, Alagh argues. These are now urgent questions needing behavioural work and a degree of precision on the real choices available to India. (See op.cit., Alagh, 1995, for a mathematical statement of gaps and policy choices in the next generation models.) It is being correctly argued that open economy paradigms, price and behavior determined models have a larger role to play in development and

planning policy modeling in the next phase. There are some traditions of this in the nineties which need to be reinforced. There was perceived a link between market reform, technology and macro policies. Models which used income distribution to determine prices were worked out. In growth exercises, potential output was shown to depend on capacity slack and the inverse of the ICOR. Private investment would depend on the accelerator and a 'crowding in' rather than 'crowding out' effect. Public investment would as a policy variable be determined exogenously. In this largely academic discussion the main outlines of such a model can be articulated. See Y.K. Alagh (1995), "Development Models: The Next Phase", *Sankhya*, Series A, Indian Journal of Pure and Applied Mathematics, Vol.26, No.6. reprinted in B.L.S. Prakasa Rao, *Statistics and its Applications: Essays in Honour of P.C. Mahalanobis*, ISI, Kolkata).

Government investment (ig), capacity utilization (u) and foreign obligations (f^*) tend to drive the system. In fact the way each one or combinations used to close the model leads to the main features of interest. Identifying restrictions of a non-monetarist kind are possible and determine the system. There are many alternative ways of closing the system and not just the monetarist one. It has been shown such models have great applicability to India. In this paper Alagh also argued that income distribution could be modeled since demand functions for the rich and poor were already available and also price responses of supply functions since LRMC pricing was a tradition as argued earlier. More recently he was told that such modeling would not be done, by the policy makers anymore. *Sankhya* Series A is much too theoretical a journal it was said and his paper was unfortunately for him was published there (this is the reason for giving the full reference above). For the current generation of policy makers the benefits of reform and nature of required policy changes are so obvious that it is not considered necessary to model policy choices anymore.

There is also little work on the employment and demand consequences of a more open economy. Alagh has separately argued for more research on the employment consequences of areas showing high export and while considerable case study material exists, there is less of a macroeconomy nature (see Alagh, Presidential Address, Indian Society of Labour Economics, 1999). Also the relationship between income distribution and macro outcomes is considered uninteresting.

The Growth Story

It is interesting that only after the growth story was known in India for almost seven years was it globally discovered. Until then India was regarded as a basket case. In 1997 in his Inaugural Address to the Indian Society of Labour Economics at Trivandrum, Alagh had comparing the period since the late Seventies with the earlier period:

“Per capita growth was less than 1% in the early period and is 2.65% in the later period. In the later period, registered manufacturing is growing at around 7.5% and agriculture at above 3% (Table-2). In the early period agricultural growth was appreciably lower. Growth is now becoming a built-in part of the structure of the Indian economy. Table 3 suggests that in the Eighties, there was hardly any year in which the growth was less than 3% compound annual and in around 80% of the years it was more than 4% compound annual. The situation was the other way round in earlier decades. Thus in the decade of the Fifties, GDP growth was less than 2.8% in fifty per cent of the years and in the remaining years, it was more than 5.7%. In the decade of the Sixties, this behaviour persisted and growth was less than 3.1% or negative for fifty per cent of the years and in the remaining years it was more than 5.1%. However, from 1975-76 to 1996-97, a growth performance of less than 3.1% was there in only three of the twenty one years. There are therefore two characteristics of growth in recent years It is higher. It is more stable” (Alagh, IJLE, 1996; A. Virmani argued along the same lines, for references see Arvind Virmani ICRIER, 2003/04).

Essays on Sustainability

There are two kinds of methods which introduce environmental considerations in development policies, Alagh argues. The first is public expenditure, investment and other policies in which environmental considerations are directly introduced at the stage of formulation, evaluation and approval. Policies which lead to such an integration at the economy level, both for public and private investments, are a part of this method. Such programmes and policies may be at the economy, sector or project level. Since in most environmental cases, “externalities” are involved, the sectoral or economy level may need attention as compared to only project level analysis although the project or plant level will, he argues be the ultimate focus of action orientation. The second approach is one where environmental considerations are considered as add-ons to project selection, financing or implementation, or alternatively, policies are developed to mitigate environmental costs.

Examples of the first kind of programmes are energy saving technologies of infrastructure, manufacturing or mining or by-product recycling methods of production. The reference here is to environmentally friendly aspects embedded in the technology itself. Alternatively, agricultural crops, production methods and input use patterns which sustain land, “enrich soils” or use water or energy in an “optimal” manner are examples. Also, policies which encourage environmentally friendly products or processes, like non-leaded petrol, CNG driven vehicles, fall in this category. The second case includes examples like emission taxes, environmental costs included in GNP analysis or policies; or projects like reclamation of saline or degraded lands or effluent channels.

It is obvious that development which introduces sustainability considerations consists mainly of the first kind of programmes, policies, technologies or products. These are projects or programmes and policies in which real social resource costs and benefits and benefits are fully considered and thus technological and organizational options which are environmentally friendly are given due weight at the blueprint or design stage. To give a preliminary explanation, it may be useful to define what the method does not do. The method does not first design an economic development strategy, a development plan or policies, and then separately work out an environmental plan or policies. It does not, therefore, follow a methodological sequence in which profitable market outcomes are first worked out and then environmental costs and benefits are separately looked at. Alternatively, the approach is not to implement economically profitable projects and

then to introduce pollution averting techniques like precipitators, effluent channels, or by-product recycling processes like energy cogeneration, recycling of chemical and other material wastes etc. or at a regional level, river and air pollution “clean up” schemes and economy level pollution taxes and subsidies. Similarly, at the highest level of economy-wise aggregates, the approach is not to work out GDP indicators of gross value of output or gross value added and then to separately work out a vector of environmental costs, to estimate net social output or welfare. This of course does not mean that in operating economies, the legacy of the past is to be ignored and environmental costs and consequences of the operation of existing projects and sector can be neglected. Also, it does not imply that production processes in which environmentally friendly opportunities are integrated at the stage of inception, are costless in the net sense. The method of reasoning, or the mindset, in the positive sense is to design development strategy and policy with environmental costs and opportunities seen as a part of the “nitty gritty” structure of the economic process itself and the details of its growth as it unfolds itself in real time. The design of sustainable development therefore implies a refusal to separate environmental costs and opportunities from the fundamental processes of the functioning of the economy. Real social costs and benefits in reasonable time horizons, in which they work themselves out, have to impinge on consumption patterns of individuals and groups and therefore work back on production and distribution processes.

Given the above focus Alagh argues that there are six major sets of techniques with which policy makers can integrate sustainability considerations in economic decisions, and his work is around them. These are techniques required for:

1. the evolution of a long term and short run strategy of development, in which externalities and inter-relations are not lost sight of, particularly for sectors and regions which have potential for development and those which have borne the major costs in the recent growth process; this would require selective but intense analysis of recent developments, problematiques and evolving potential in a fast changing global economy;
2. evolution of policies corresponding to the development strategy; strategic interventions in existing markets to introduce sustainability concerns or evolution of new market forms in areas of concern like backward areas, fragile lands; the concern may be with more appropriate factor prices (for example, the cost of non-renewable resources)

or product prices; interventions may involve subsidies, taxes, information systems or steps for the development and sustenance of new organizational forms;

3. policy techniques for fragile resource bases, land and water development problem areas; these would include areas of low and/or variable water availability, poor soils, special eco-problem areas like hill and forest areas, cold and hot deserts, coastal lands and islands and polluted river valleys and degraded areas;
4. special consideration of problems emerging from industrial pollution including inefficient and unsustainable energy use, industrial waste disposal and social costs of industrialization and urbanisation including urban waste disposal, dualistic development, slums, industrial housing, social violence and criminality;
5. consideration of problems emerging from the relationship between population growth and the carrying capacity of eco-systems and from inappropriate institutional systems either unmatched with available endowments on account of commercialization or alternatively unable to adapt to changing social pressures; and
6. techniques required to integrate supra-national concerns of sustainability with national plans and policies; these may be inter-regional concerns (international rivers, mountains, transport systems, etc.) or global issues (ozone layer, sea warming, etc.)

Since the third and fourth set of issues relate with very concrete sets of problems of development in fragile eco-systems and sustainable industrial and urban economies, the discussion of policies can be at the sectoral level. Also, woven in this discussion can be the third set of techniques examined, namely policy interventions in selected markets and the question of design of more appropriate market forms when required (the second set of issues listed above). The discussion can

also proceed to the somewhat more abstract though equally relevant issues of population and carrying capacity (issue (v) above), long and short term development strategies (issues (I)) and inter-regional and international implications, which are important in the South Asian context . Our concern is always on replicability of success experiences in sustainable development and disincentives for perverse developments.

Essays on Agriculture, Rural Development and Poverty

At one level Alagh's work on agriculture is on the relationship of the agricultural and rural economy to the rest of the economy and to the global economy. There is therefore the question of intersectoral flows, perverse food and agriculture policies as a constraint to aggregate growth, terms of trade, rural urban continuums, long term modelling of agriculture and diversification in relation to income growth. At this level would also be his work on agro climatic planning and the agricultural sub models of the Five Year Plans which he pioneered, as also on India and the WTO trade dominated policies. He set up the Econometric Studies Unit of the CACP in 1982 when he was the Chairman of the APC as it was called then. He prepared and published for the first time the Reports of the Commission to encourage public discussion and prepared a Season report rather than crop wise reports to look at relative crop positions. His work on the deficiencies of the Pursell Gulati negative DRCs and Gulati's recent attack on India's food security policies is in that framework.

He argued that terms of trade had fallen for agriculture in the Nineties and therefore private investment shares would fall. He was right. Also public investment shares fell. In the recent period investment shares have risen and Alagh has written on growth not rising commensurately. He speculates on nonrenewable resource constraints.

At another level his work is on the micro aspects like, in the recent phase;

- Maintaining and increasing agricultural productivity, particularly in intensive cereal production releasing land for diversification

- Integrating tariffs with price policies
- Improving the efficiency of water withdrawals for agriculture
- Environmental degradation
- Problems in distressed areas (100 Districts)
- The increasing importance of rural non-farm employment and income in projections of growth
- Enhance scientific literacy and decision making by farmers.
- Involve community-based organizations in improving production and linking to markets. (Bopal Declaration)
- Get small and marginal farmers and their groups more involved in emerging supply chains (Producer Groups)
- Focus on implementation and accountability and effective local plans

More recently Alagh argues in his work on The Future of Indian Agriculture (NBT, 2013) that infrastructure has to orient to market towns to which large migrations are taking place but are ignored because rural urban migration is to Census Towns which are not even classified as towns although they have the characteristics of urban areas as defined in the Census. He shows the incongruity that at last the plans have changed the base numbers of rural urban work force but not the future projections. If the projections and policies are remedied he foresees that large scale productive employment will be generated leading to more than a quarter increase in the incomes of poorer people.

Alagh has since the nineties carried on the campaign that the Official Poverty Line, developed by a Task Force he chaired in the Seventies must be given up and showed later that the Tendulkar Committee had not done so. This was handed to a Rangarajan Committee but will probably not come to a conclusion before the next Government is installed

Essays on Technology and Governance

At one level Alagh has worked on the sectoral and policy aspects of technology and growth in open economies. At another on strategic technologies and choices for a large economy. At the first level the questions that must be posed today for research concern the impact of the global transformation --technological and economic-- that is taking place, he argues; the extent to which this process is being understood; and the manner in which it relates to concepts such as sustainable development in economic, social and cultural terms. If “impact” studies are not to be just descriptive, emphasis should be put on analytical studies and, if possible, should propose alternative development paradigms. It is suggested that this should be the context of sustainable human development. This theme would draw from both the concepts of economic development based on technological progress, and of sustainable development as an environmental concept of optimal utilization of local natural resources, but it would be different from both.

The attempt now should be proactive in terms of looking at both the natural resources, the technological and socio-economic aspects, and institutions and actual operating rules which govern their working as seen in studies of either the “crisis” or the “benign” aspects of “developments” taking place. If this is not done and economic and technological processes or environmental and cultural “developments” continue to be examined separately, “facts” will run ahead of theory and it will become difficult to understand and explain many global and regional developments. Development such as the interrelation of global technology and economic restructuring with land and water and peasant societies, or of industrial and trade restructuring with the small artisan communities, could, for example, provide the framework of interdisciplinary and comparative analysis. The complex interrelationships of these classes of issues, in which very non-linear and previously unknown developments are already taking place, with concepts of “restructuring” of economic and technological policies, at the national or regional level, in the Neo-Fordist era, is a somewhat more abstract level. It is at this level that the question of global economic and technological transformation and its impact on regional and local issues can be examined.

These questions also have significance for the operational aspects of policies relating to macro-economic restructuring and special sectoral policies such as agricultural trade policies. If our arguments are founded, in terms of describing

socio-economic phenomenon, there cannot by definition be a “universal” set of policy rules for development. However, knowledge, technology, investment and trade are powerful influences at play and can be ignored or underplayed only at the risk of showing a lack of realism in the understanding of contemporary reality. This then leads to the concept of “phasing” and “transitional” strategies, which individual communities, initially relatively self-reliant, use to “cope” with global influences. Is it possible to give a concrete context to this concept? Or is it an empty box?

The recent crisis in money markets in East and South Asian economies lends urgency to such questions. The issue is discussed here in the context of a debate which has developed in India over what is called the “level playing field” argument. This concept builds a rigorous economic framework for a phasing and transitional strategy.

At the second level is Alagh’s work on the Fast Breeder Reactor (FBTR), the development of the Super Computer on account of President Reagan’s restrictions on India, the cryogenic engine, Bt seeds, the technological and human aspects of large irrigation projects and the National Power Grid.

On Governance Alagh’s work on the recruitment and training of the higher civil services and on local self government is driven by the imperatives that as the State withdraws from direct delivery governance would need to establish a regulatory framework for the functioning of the economic and social sectors; and also lay down the institutional framework, the incentive and disincentive mechanisms and fiscal structures for civil society institutions to function, like decentralised, local institutions of Government, Cooperatives, NGO’s and newer ‘mixed’ forms of similar organisations, He foresees in India that

- Non-renewable resource scarcities will be far more severe particularly of resources, like water, quality land, and energy and sustainability concerns will be acute.
- There will be a much greater emphasis on the rights of individuals and groups, including participatory forms of decision making. This in turn will demand greater fairness and self-restraint in the use of Government Power. Related to it will be demands on transparency and right to information,

- There will be the demand for protecting vulnerable groups, either the historically underprivileged, or the victims of marketisation, concerns for human rights and particularly of specific groups such as women, children, the minorities, the adivasis, the mentally and physically challenged,
- on the flip side modern technology will be seen as providing cutting edge knowledge based solutions to emerging scarcities or problems, and therefore greater use of information technology, biotechnology, systems networking, the new materials and strategic management responses,
- Thoughtful groups will see security concerns becoming more acute, arising from socio-economic political dichotomies and resultant tensions as also the more basic issues of energy security, food and water security and institutional dimensions of addressing these.

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