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Preface

Fifteen years of research form the background of this book on Auroville and its Economy. When Henk Thomas visited Auroville for the first time in 1991 in the context of project cooperation between Auroville and the Dutch Foundation De Zaaier, he became interested in Auroville’s economics. Auroville apparently formed a conglomerate of institutions that reminded him – having himself already published extensively in this field – of systems of economic participation, like the Mondragon cooperative group in Spain. Yet, it was in almost every aspect totally different from the well-known Spanish cooperative, and thus puzzling.

Here, in South India, an international community of some 1,500 adults at that time was experimenting in social and economic spheres to build in the long run a city, which would be ecologically sustainable at a modest level of living for some 50,000 people.

During subsequent years, Henk became increasingly involved with an Auroville Economy Study Group, which focused in particular on the Central Fund budget and was responsible for some community-wide surveys.

Since Auroville began to face important economic and policy challenges due to significant growth, the Economy Study Group and Auroville’s Funds and Assets Management Committee (FAMC) made a request in 1997 for research and advice to Henk Thomas in cooperation with Stuart Leard, who had just established a Social
Research Centre in Auroville. Mukul Kumar joined forces at that time and brought in Manuel Thomas, Chartered Accountant and Partner of an accountancy firm in Chennai, for his help in data management and analysis.

By that time Auroville had existed for almost thirty years, and thus the first step was to start data collection. In the absence of a statistical office an almost heroic effort was made to gather income and expenditure statements and balance sheets from various locations. Over a period of five years, thousands of documents were collected. Some were damaged by humidity or ants, and some were found partially flooded in a dark cellar, where they had been stored after the legal ten-year period of preserving records had passed. However, each time new material emerged.

The collection of these documents during at least three major operations was completed by a volunteer team consisting of Guy Ryckaert, Mukul Kumar and Stuart Leard, under the monitoring and conceptual guidance of Manuel Thomas. First, a huge work was undertaken to digitise an enormous ‘harvest’ of annual account statements, which by the year 2000 had exceeded 3,000 records of commercial and service units dating from 1980 onwards; earlier documents, while holding interesting information, were too incidental to be of use for this systematic and massive operation. Next, due to the involvement over time of different accountancy experts from nearby Pondicherry, and adjustments in accounting procedures, a major effort was required to obtain consistency of records over such a long period. In addition and simultaneously, continuous quality control was implemented to ensure that unavoidable errors of processing financial figures and mistakes in data interpretation were spotted and, where possible, corrected or otherwise deleted. Lastly, a conceptual round took place in which Henk, Mukul, Guy and Manuel formulated a long list of indicators, which formed the basis for a software programme that was run by Srinivasan, an expert in this field at Thomas (V.M.) & Co., Chartered Accountants in Chennai.
In 2002, Henk and Manuel decided to organise an open seminar in Auroville and present to the community the research that had been done till then. By that time Stuart had joined Saskatoon University in Saskatchewan, Canada, to undertake a Ph.D. programme and embark on an academic career. To our great regret, also Mukul had left Auroville and his presence was missed during the preparation of this seminar. In the meantime Harini Sampathkumar had become indispensable as researcher and co-director at the Social Research Centre, while also Manuel and Srinivasan joined in a round-the-clock working session of two full weeks to analyse, test, remove bugs, and finally present in graphs and tables a number of variables, such as turnover, net surplus and contributions from commercial units, as well as relating some of these indicators to the number of adult Aurovilians. The document – *White Paper on Auroville’s Economy* as it was called for the occasion – was generally accepted as the first study to attempt a sketch of Auroville’s meso-level economic system.

The initial outcome was reassuring, in the sense that no major anomalies in the data were discovered and, even better, tentative hypotheses could be formulated for further in-depth analysis. Also, a policy-oriented instrument of carrying capacity, specifically for Auroville, was introduced. In a nutshell, this tool – closely related to the economic concept of “net value added per capita” – clearly responded to a basic concern: what size of population can Auroville sustain at a modest “maintenance” level? And under what conditions, while adhering to clearly formulated goals like the provision of free education and health care facilities, could Auroville’s population – preferably with some speed – expand to reach the stated objective of 50,000 inhabitants.

Both the workshop audience and the Funds and Assets Management Committee (FAMC) – a key committee central to the management of Auroville’s funds and assets – responded positively. The latter invited Henk and Manuel to continue and
expand their research involvement. With Henk living in The Hague, The Netherlands, and Manuel being heavily occupied with his chartered accountancy firm in Chennai, Harini performed a remarkable job for some 10 years in offering a professional anchor within Auroville for the research project. Henk visited Auroville in 2005, 2008, 2010 and 2011, during which time he and Manuel gave presentations and interviews. These short visits offered the only opportunity to work together in Chennai and in Auroville itself as a complete team.

Gradually, the objective of the research project became more specific and focused on writing Auroville’s economic story for four complete decades (1968 - 2008). In the absence of a statistical office and, even more, of an economic planning unit in Auroville, the project was threatened a number of times to come to a complete standstill. At least twice a combination of a working visit of Henk and Manuel to Auroville, and the intensive use of e-mail and Skype, barely succeeded in restoring momentum to the research process. Despite these difficult circumstances, the study was finally completed in 2013.

This book is the result of teamwork, with core inputs for design, composition and content from Henk, as emeritus professor at the International Institute of Social Studies, The Hague, with a background in economics of participation and labour studies, in cooperation with Manuel as a chartered accountant with decades of experience, who made the outstanding expertise of his office available at critical moments, and Harini for the management and coordination of this project.

Our ever-supportive collaborator has been Guy Ryckaert, who generously and creatively shared his knowledge of Auroville’s economy from the very first meetings with Stuart and Henk in 1997 till the final year of editing, during which he literally scrutinised each chapter line by line. His untiring involvement stood guarantee for avoiding many factual errors and misinterpretations and became indispensable for completing this book.
The support and involvement of many other members of the Auroville community has also been crucial for this research project. In the first instance we are grateful for all those who made specific contributions on topics where insights from within Auroville would enrich the understanding of Auroville’s economy. Several people contributed a text on the economic thoughts of Auroville’s founders: Sri Aurobindo as a towering personality in the background, and the Mother with her at times vastly conceptual and at times highly practical advice and instructions to shape Auroville. Rod Hemsell and Carel Thieme submitted their views, after which Judith Robinson was the first to compose a comprehensive draft on this subject. The objective was to obtain a balanced sketch, which would be well researched while doing justice to a wide range of interpretations that had developed within the Auroville community.

A narrative description of 40 years of Auroville’s economy could be the basis for a research paper in itself. A first skeleton sketch was already made in 1998 by Henk and Stuart; thereafter it took 10 more years before Henk wrote a first draft inviting comments and inputs from Stuart. A unique opportunity offered itself to invite ‘key players’ during the early decades to submit written statements – as it were, oral history records – on a number of core themes. Guy Ryckaert wrote on land acquisition and building homes, Clare Fanning on the early beginnings of Pour Tous, Otto Alois on finance, Sanjeev Aggarwal on education, and Carel Thieme on health insurance.

On the theme of work and employment we were fortunate to have professional inputs from Harini, who had conducted excellent surveys in this field and also written on this subject in her term paper for a course at the International Institute of Social Studies, The Hague.

Manuel, together with Tejas Joseph, undertook two rounds of case study interviews that were updated in the year 2012 by Harini and carefully ‘crafted’ into a chapter by Henk and Guy; a task of a
tall order given the abundance of available material and continuing changes that had happened over the ten-year period since the first interviews had taken place, while also digging for micro-information and articulating wider perspectives of sustainability and economic relevance.

We are grateful that many Aurovilians expressed an interest in the importance of this research project and generously shared sources at their disposal together with their recollections of events and developments.

We would specially like to single out Krishna Tewari, the outstanding guardian of the splendid Auroville Archives who, whenever called upon, went out of his way to make sources available. Otto Alois, Divya Kapoor, Michael Tait and Toine Van Megen were kind enough to read an initial draft of the ‘quantitative’ chapters, and offered helpful comments. Lyle Jaffe, Rathinam Ezhumalai and Kumar Kannappan, who helped providing valuable financial data, need to be sincerely acknowledged. We also like to mention Hemant Lamba, Meenakshi Ramachandran, Pala Pajor and Martha Mendez for their support, and the printing unit Prisma for their final editing work and professional guidance.

Manuel would like to acknowledge Mukul for introducing him to Auroville. He also wishes to give credit to the many members of his accounting staff, including Anju Thomas, Karoline Gomes and Chinmy Roy, who took up the responsibility of converting the enormous amount of financial data into a uniform format.

At this point we would like to express our greatest gratitude and respect for Harini, who single-handedly kept the Social Research Centre afloat and – while also remaining involved in education for a village school – took care of data and statistics management, as well as of all the logistics, with great professional skill and undaunted commitment. With the two researchers at a distance and an understaffed research centre, her role provided
the organisational and personal link between us, the ‘outsiders’, and many Aurovilians.

Fortunately, the Social Research Centre could from its very start count on the commitment and financial support of Foundation De Zaaier in The Netherlands. In this context, we would like to express our deepest gratitude to the board members of Foundation De Zaaier – mentioning in particular Mia Berden’s personal commitment to Auroville’s ideals – not only for supporting this centre but also for underwriting the expenses for the research visits to Auroville.

The core activity of expanding the data base and maintaining its records till the year 2008, of monitoring and quality control, of analysis of outcomes, and of writing this study, was undertaken by the two authors, who worked in close collaboration by e-mail, Skype and four joint sessions in Chennai and Auroville. Henk designed and wrote the content within the academic discipline of economics, while Manuel applied the rigour of accountancy to the comprehensive and complex system of financial data. They take full responsibility for the content and conclusions presented in this book, which may not necessarily reflect the views held within the community.

It has been a greatly enriching experience to form a team, consisting of an economist and a chartered accountant, and to work on this research project for more than a decade. In searching for an authentic economic model, we found it enormously stimulating to study the complex economic history of Auroville, while retaining a professional distance from this fascinating collective experiment with its almost utopian drive towards a sustainable, self-supporting economy and its continuing commitment to the ideals of human unity.

Summer 2013

Henk Thomas, The Hague, The Netherlands
Manuel Thomas, Chennai, India
Pioneers reforesting heavily eroded land and building one of the first Auroville communities, called “Aspiration”.
1

Introduction

1.1 Why Auroville?

In 1968, on a barren plateau in south India, some 200 young adults from all parts of the world responded to a dream and a vision of Mirra Alfassa, called The Mother, to build a “city the Earth needs”. Since that year a remarkable development has taken place. Forty years later, in 2008, a tiny city-in-the-making with a population of more than 1,500 adults and over 400 children had emerged, providing employment to some 4,000 workers from nearby villages, with which Auroville’s core land and its winding paths and roads form an intertwined geography.

This barren plateau with its degraded land, bordering the Indian Ocean in Tamil Nadu, a state in south India, and close to the then medium-sized town of Pondicherry, had been transformed into an ecological miracle, with continuing restoration of flora and fauna creating a separate micro-climate in a tiny area, called Auroville – City of Dawn. Its people lived in small, scattered communities, characterised by a great variety of accommodation, ranging from primitive huts covered with palm leaves to modern apartment blocks; no longer on lands with wide horizons but in areas of dense forests with controlled water flows.

Spirituality, ecology, individual creativity and social ownership have been core elements of a strong commitment
from the Aurovilians, as they are called, to their community and its ideals.

Its spirituality is visible in the form of an impressive meditation centre shaped like a slightly flattened globe, called the Matrimandir, with its twelve surrounding gardens located in the central "Peace" area. It is the “soul” of this emerging city, in which schools, public buildings, enterprises, services, guest houses, sports grounds and cultural facilities bear testimony to a lively and vigorous community. The weekly News and Notes, Auroville’s radio station and Auronet, Auroville’s ‘intranet’, together with a comprehensive and regularly updated website, provide markers of an intensive communication culture. One witnesses the beginnings of a city of beauty, quietness, service and reflection, rather than a hectic core of commercial activities and shopping malls, which are almost everywhere else the symbols of urbanisation.

Auroville soon became known in many parts of the world for its environment-friendly products, particularly its textiles and handicrafts. Literally thousands of visitors and tourists started visiting this somewhat exotic social, ecological and spiritual experiment, which stands out by its ambition to become a city of 50,000 inhabitants. Numerous publications have recorded parts of Auroville’s history and development: town planning documents, water studies, agricultural and ecological research papers by professionals of Auroville itself, often in teamwork with experts, nationally and internationally. Books, brochures and publications such as calendars, a monthly news magazine Auroville Today with investigative articles, including reviews on theatre plays or movie festivals, and – last but certainly not least – an excellent website\(^1\) with comprehensive introductory and in-depth information have made it easy for any interested person to obtain abundant information.

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1  Auroville’s website www.auroville.org offers a wealth of information and interesting data.
1.2 Studies on Auroville

Yet, studies and research to date have rarely exceeded descriptive style and quality. Valuable exceptions are an excellent sociological study by Stuart Leard on aspects of Auroville’s administrative structures, an essay by Bindu Mohanty on Auroville’s spiritual ideals, and Anupama Kundoo’s fine book, in which Roger Anger’s architectural achievements – the architect who realised great buildings both in France and Auroville – have been splendidly presented.

Interestingly, the economics of Auroville have attracted little attention to date, in spite of the prominence of articulated ideals such as ‘social ownership’ and ‘social commitment’, which are indications of a socially and economically coherent system. The absence of work contracts for members of the Auroville community signifies an emphasis on relations of trust between people, rather than the customary supply and demand in conventional market relationships. Also, the objective of creating a “no-money-circulation” system within the community shows the orientation Aurovilians are searching for in designing the socio-economic contours of their future city.

Auroville’s expansion, now stretching into its fifth decade, gives evidence of its institutional stamina also in the field of economics being sustained by a second and soon third generation of members. It is thus high time for a closer scrutiny and research.

Research on Auroville’s economy – to the extent that it has been undertaken – has mostly focused on two themes: the implications of a no-money-circulation economy and the key role of “contributions” from commercial units to the community.

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2 Stuart R. Leard, *Negotiating Modernity: Habermas and the International Township of Auroville, India*. A doctoral dissertation for the University of Saskatchewan, Saskatoon, Canada, 2011.


5 See in Chapter 2 sections on Money(2.6.2) and Business (2.6.4) for some relevant references regarding no-money-circulation and the role of contributions.
The first theme represents a strong preference to search for self-support, and the second tells how surpluses largely determine the community budget for sustaining its members and offering free or subsidised access to goods and services.

The aim of this study is to present an optimal mix of qualitative institutional characteristics with a quantitative analysis of Auroville’s economy. While applying a rigorous analysis, various methods have been used to optimally ensure a high degree of harmony with the fundamental objectives and practices in which this community would ‘recognise itself’. Instead of listing a wide panorama of different possibilities of Auroville’s package of objectives – such as ‘harmony with nature’, sustainable development, modest living, urban expansion – it is left to the concluding chapter to examine whether a coherent mix of objectives could be found by reviewing four decades of Auroville’s economic development in an inductive manner.

In the absence of similar studies, this research project poses numerous challenges both methodologically and in terms of data requirements. The approach adopted in this study towards each of the subsequent themes is spelled out chapter by chapter. Even then, shortcomings are to be expected, since – for instance – no justice can be done to an analysis of the creation of ecological ‘capital’ that in the long run may represent Auroville’s most important contribution to the world at large.

Yet, the research may yield an adequate depth and wideness of evidence to permit well-balanced conclusions about the strength and future options for this fascinating experiment, from a perspective of economic survival, expansion and sustainability.

The analysis will thus not be focused on comparisons of the efficiency of Auroville units with enterprises in the wider market economy. The interpretation of ‘efficiency’ would either be too narrow to do justice to Auroville’s objectives or too wide to assess correctly the data of commercial units in the national market economy, assuming for a moment that available data would even permit such a comparison.
Rather, one may compare Auroville’s complex record with other meso-level (neither national nor purely individual) systems, such as the Mondragon Corporacion Cooperativa (MCC), a high profile cooperative system in the north of Spain; the Kibbutz settlements in Israel; and perhaps the cooperative movement of the province of Saskatchewan in Canada. Also, in India itself, the Self Employed Women’s Association, a trade union of poor self-employed women workers, and the dairy cooperative programmes, may offer a framework for assessing Auroville’s record from a comparative perspective.

A first study aiming at sketching Auroville’s economy in a comprehensive and longitudinal manner was presented as a White Paper on Auroville’s Economy in 2002. This book is the continuation of that pioneering research and contains the first comprehensive study to examine the evolution of Auroville’s economy as well as to assess its viability after four decades.

Chapter 2 introduces biographical notes on the founders, along with an overview of, in particular, the Mother’s vision on Auroville’s economy, after which a remarkable history of complex institution building follows in Chapter 3.

Chapter 4 examines aspects of work by members of the community and of employment of workers from nearby villages. A selection of case studies is presented in Chapter 5, which describes the development of a number of commercial and service units.

The core of quantitative research forms the content of the following three chapters, which probe in particular the extensive record of Auroville’s economy from 1980 onwards.

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The final Chapter 9 offers a ‘synthesis’ of the different phases of Auroville’s economy; gauges Auroville’s economic system in the light of the principles and guidelines given by its founders; and assesses Auroville’s sustainability and its coherence as a model for durable socio-economic development.

1.3 Research methodology

1.3.1 Auroville’s founders: Chapter 2
Whether it is Ela Bhatt with the Self Employed Women’s Association (India) or Don José Maria Arizmendi-Arrietta in Mondragon (Spain), founders frequently play decisive roles in shaping social experiments. This is definitely also the case in Auroville, with the role of the Mother and, somewhat in the background, the equally towering personality of Sri Aurobindo.

This chapter offers brief biographical notes on both Sri Aurobindo and the Mother, whose vision formed the roots of Auroville. From 1968 till today, they have inspired Aurovilians to develop a lifestyle and a community with far-reaching implications also in the economic sphere, such as the absence of private ownership and a complete freedom to decide on the manner in which working hours are dedicated to the community. Taking into account that aspects such as the provision of a basic income – called a “maintenance” – and the role of commercial units are part of the vision, this chapter aims at highlighting all themes and issues that may have a bearing on answering the question whether Auroville’s economy provides an interesting and relevant model in a history that spans centuries full of collective movements.

Since, in particular, the words of the Mother carry a great weight in Auroville, her vision and reflections on Auroville’s economy are examined in detail. Fortunately, access to all her sayings and writings has been relatively easy thanks to the publication of her *Collected Works* and *Mother’s Agenda*. 
There exists consensus within Auroville on a limited number of core – one may say policy – principles. Yet, in practice, these lend themselves to widely differing interpretations, which reflect in the formulation of practical guidelines by and for Aurovilians.

1.3.2 Auroville’s economy: 1968 – 2008: Chapter 3
Since institutions, rules and regulations and their changes and adaptations to new circumstances and challenges represent the essence of economic history, Chapter 3 gives an extensive narrative overview of Auroville’s practical search for a self-supporting and sustainable community. A wide variety of institutions and activities appear to have sufficient depth and coherence to consider Auroville’s economy as a meso-level system that surpasses from a worldwide perspective countless micro-projects, valuable in themselves whether in a context of development and poverty alleviation or as cooperatives with well-defined objectives. However, the main question is: does Auroville reveal the contours of a sustainable meso-level system? And, even more ambitiously, is it a model for expansion in itself as well as applicable to other situations?

This chapter has been the result of a meticulous scrutiny of written records, particularly minutes of frequent meetings, which were digitalised and indexed through a wide range of economic ‘keywords’ covering the field of economics in the widest sense of the word. In addition several key participants, particularly in the early years, shared memories in written form, thus ensuring the construction of Auroville’s historical record of institution building. Statements included in this chapter range from the development of an educational system, community health care facilities and land acquisition to the early start of a central community budget.

A fascinating story of experiments with, in particular, distributive mechanisms unfolds. The fate of sharing mechanisms could be retracted quite precisely. Also the important role of non-conventional education and the search for a community health insurance have been highlighted.
In this chapter one reads a mix of signals that call for close scrutiny: a preference for community ownership of all ‘capital goods’, a predilection for freedom of work choice, the acceptance of hired labour and market relations with the ‘outside’ world, and the ideal of a basic allowance called “maintenance”. Together they form an interesting panorama of economic topics. Lastly, a constantly returning theme regards the desirability and timing of introducing an economy based upon no circulation of money within the community.

1.3.3 Employment and work in and around Auroville: Chapter 4

Auroville is being built ‘by hand’. Physical work in the early decades to restore degraded land was the only way for Aurovilians to start implementing ‘an economy’ for a widely spread-out community. Taking the almost complete absence of capital into account, it would have been impossible to realise the slowly expanding infrastructure and production without the manual labour of workers from nearby villages. Therefore, this chapter is exclusively devoted to employment relations and work patterns of, respectively, village workers and Aurovilians.

The only adequate study on the background of village workers in Auroville at our disposal has been an outstanding comprehensive survey that was undertaken in the year 2000. Research on work involvement of members of Auroville builds, in particular, on some excellent surveys, which were conducted by teams of professional researchers between 1995 and 2001.

Quantitatively, these surveys form one of the cornerstones to understanding Auroville’s economic institutions and regulatory framework. Also, in a qualitative sense, a fascinating survey with a large response from Aurovilians provides interesting insights

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8 Report on the Socio-economic Survey of Auroville Employees 2000, a study of SEWA (Small Employer’s Welfare Administration) and SRC (Social Research Centre), April 2005, during which out of a total of 4,179 people employed in Auroville at that time 3,762 were interviewed.
on views about different aspects of work, and entitlement to a maintenance allowance.

The results of these studies provided factual anchors that have greatly benefitted the entire study, in particular the study on the impact of changes in the wider labour market. Chapter 4 is highly descriptive, and even includes anecdotes as sources to gain insights, combined with quantitative information.

The absence of any regular collection of statistical data on work, employment and earnings has certainly hampered a precise analysis. Yet, the available information along with oral reports permitted a reasonably coherent insight into these phenomena. However, it must be emphasised that only a preliminary approach has been made to the complexities of the labour market of Auroville itself and its relationship with that of the neighbouring villages.

1.3.4 Case studies: Chapter 5
In this research project a traditional approach towards classification of productive units has been followed, while respecting Auroville’s own preference to make a distinction between commercial and service units.

Since it would be rather pompous and impossible to undertake a complete study of each commercial and service unit, it was decided to present in Chapter 5 a selection of ‘case studies’ that would provide insights into the internal fabric and dynamics of some units and activities. The chapter does not make any claim to completeness or great depth, but offers a glimpse into 17 units, and, as such, a narrative introduction to the important theme of Auroville’s economic stability and growth. Cases were selected from different branches such as agriculture, ecology, food production, handicrafts, textiles, technology, etc. and range from units involved in architecture and construction consultancy to service units such as the Solar Kitchen and Quiet, a centre for wellness and natural healing therapies.
The methodology could be characterised as stratified sampling to ensure a good spread across branches and scales of operation; two rounds of interviews together with written statements from “unit holders” – as Auroville’s entrepreneurs and managers are called – provided the inputs for this chapter. The first round covered relatively large as well as small units, both successful and less successful. The second round focused on a number of cases that had experienced a healthy development, and held promise for thriving further development.

One observes through the decades the need for a ‘central planning institution’ to balance a strong preference for decentralisation and personal initiative, along with the community’s penchant to combine commercial activities with economic self-sufficiency and a no-money-circulation system. In the absence of a clear blueprint of a desirable production structure, one finds a plethora of commercial units (158 in the year 2008) and dozens of service units (66 in that same year) as well as numerous activities of the so-called City Services operating under the Central Fund. Yet all units and activities, while highly diverse and often of microscopic quantitative relevance, taken together add up to a somewhat structured panorama, which has been touched upon in this chapter. One thus notes also an attitude to accept complex structures, which may only come to full fruition with a major expansion of Auroville’s population.

In this context, it should be mentioned that the Auroville Foundation, established in 1988 through an Act of India’s Parliament, has provided a legal umbrella and unifying accounting framework for Auroville’s multifarious activities. Since then, all unit accounts are audited by the Comptroller and Auditor General (CAG) of India and consolidated into a single Auroville Foundation balance sheet, which is annually submitted to the Indian Parliament.

1.3.5 Economics: Chapters 6, 7 and 8
The previous chapters presented Auroville’s economic development as a narrative description with an emphasis on institutional
and regulatory aspects. The following three chapters focus, as precisely as the available statistical evidence permits, on tracing the record in a more one-disciplinary approach of economics only.

It has been a highly time-consuming and labour-intensive effort to re-assemble a base of statistical information that was never stored with the objective of presenting a longitudinal development perspective. Fortunately, Auroville’s weekly *News and Notes* were kept with an admirable frequency and carefully guarded from the earliest years onwards. The Social Research Centre with its competent coordinator, Stuart Leard, and excellent support from many corners, succeeded in tracing extensive materials, which in turn were digitalised and coded with an impressive list of key words. Most helpful was the fact that from the early years many of Auroville’s units kept income and expenditure accounts along with annual balance sheets. Collecting data, checking their ‘quality’, solving inconsistencies, discarding accounts that were sometimes damaged – due to rain, leakages and insect attack – took some five years to obtain a solid statistical base. While it already granted insights into the very early years, it was from around the year 1980 that a unique and comprehensive set of statistics could be made available for in-depth research.

A first round of research resulted in presenting in 2002 a *White Paper on Auroville’s Economy*, in which the authors – Henk Thomas and Manuel Thomas – made a comprehensive analysis of Auroville’s commercial sector.

Much work was undertaken afterwards to expand and deepen the statistics as more data of units and surveys became available. Around the year 2008 it was then decided to aim at a four-decade analysis, which with this study – largely made by voluntary involvement – has now been completed.

By that time a database of more than 3,800 balance sheets had been created, and meticulously scrutinised for consistency. We have restricted the quantitative analysis of this study to span 28 years of data (1980-2008), for which 3,793 balance sheet data have
been used. This database covers all commercial and service units, and provides a comprehensive insight into the Central Fund budget from 1991 onwards.

The contours of Auroville’s economic development, in particular the more recent decades beginning in the mid-1980s, are systematised in three different chapters using this extensive and comprehensive statistical database.

With such a long period of analysis and comparison, an adequate base year needs to be selected in order to obtain a correct ‘picture’: comparing nominal values of 2008 with those of 1980 would obviously be irrelevant if no correction for inflation had been introduced. Therefore, all figures throughout these chapters are inflation corrected, and the year 1995-1996 has been selected as base year. In this way figures in real values are shown from the very early years of this analysis; by multiplying the real values for the year 2007-2008 with a factor of two, an approximation of the nominal values is obtained.9

1.3.6 Macro-characteristics of Auroville’s economy: Chapter 6
This chapter examines the structure of assets and capital to find out the role of finance and its impact in terms of capital-intensity of production in commercial and service units.

Although Auroville’s objectives include aspects of a no-money-circulation economy and a self-sustaining autonomy, the historical record highlights numerous links with outside markets. It is thus interesting to assess to what extent Auroville’s units succeeded in selling products and generating ‘import-capacity’ for the community.

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9 Nominal values refer to the actual figures in a given year, while real values adjust the nominal values to remove the effects of overall price increases and arrive at inflation-corrected figures. All tables and graphs in these chapters use inflation-corrected figures with 1995/96 = 100. To obtain nominal values, a division factor is used before 1995/96 and a multiplication factor after 1995/96.
The chapter begins with an analysis of Auroville’s financial database, in particular the size of assets and liquidity of commercial and service units, which are important instruments for Auroville’s future choices and speed of development.

It then focuses on the generation of ‘value’, in particular through market sales to Indian and international outlets, and relates the total turnover of all commercial units to the actual “value added” for Auroville itself. Lastly, the capital-intensity of production is analysed, a subject of critical importance in the literature on and practice of collective experiments.

The analysis links with the contents of an earlier policy paper that was presented to the Auroville community under the title White Paper on Auroville’s Economy. This study concentrated specifically on the role of commercial units on the basis of quantitative information, which with considerable effort had been obtained from a wide range of sources from 1980 onwards. The current study not only extends the years that could be examined from 2001 to 2008, but also expands the analysis for the entire period to the services domain, thanks to a huge effort to further improve the quantity and quality of the database.

1.3.7 Auroville’s economic performance: Chapter 7
The first section of this chapter examines in depth the ‘domain’ (or sector) of the so-called commercial units (a total of 158 units in 2007-2008) engaged in various economic branches and of differing scale and size. Auroville’s commercial domain is approached as one entity in an analysis of its total Turnover, Gross Value Added (GVA), Depreciation, and Total Surplus (identical to Net Profits in common accountancy terms). It also looks at sound commercial ‘practices’, such as reserving funds for depreciation, and at the role surpluses play for the community at large as well as for the survival and expansion of the unit itself.

If Auroville’s economy comprises more than a collection of individual units, it is worth investigating whether structural aspects
and adjustments are found over time, in particular by involvement in various economic branches such as handicrafts, textiles, construction, etc. Next to the – perhaps changing – structure, the composition of units in terms of scale and size is of strategic importance. In the absence of leading firms, for instance, it is unlikely that a group of tiny units will generate sufficient innovation to provide the dynamics that are needed in the current market economy. All these topics have been looked at in this section.

The next section analyses in parallel manner quantitative aspects of the so-called non-commercial or service units (a total of 66 units in 2007-2008) engaged in a wide diversity of collective activities, from education and health care to culture and sports, along with financial, infrastructural and administrative roles. In contrast to commercial units, which are mainly driven by outside sales, service units are, in addition to obtaining revenue from providing goods and services to community members, linked to grants and donations, especially for their development and further expansion.

As grants and donations have played a crucial role in Auroville’s development, a separate analysis from 1992 till 2008 is offered in this section. Grants and donations are generally – and this has also been the case in Auroville – linked with some preference from donor agencies towards buildings and infrastructure projects. Therefore it was worth investigating to what extent amounts for depreciation of these investments have been reserved. Grants and donations are also, to a certain level, a source of “value addition” through wages for employed workers and maintenances for Aurovilians, especially for those working in educational institutions. This is not to mention the huge value of fixed assets such as land, houses, schools, public buildings and infrastructure, which have been created through grants and donations. Thus a similar sequence of analysis, as applied to the commercial units, is followed with the services domain – albeit with a highly different purpose and intention.
1.3.8 Auroville’s carrying capacity: Chapter 8
Thanks to the availability and rigorously processed data of the so-called Central Fund, Auroville’s central maintenance budget, its incomes from internal contributions and its budget allocations to a number of community activities and services could be closely analysed in this chapter.

A brief section follows on some aspects of segmentation, distribution and inequalities within Auroville. The financing of maintenances for Aurovilians and the payment of wages to workers employed in the City Services is a central theme of this section. It is also a key entry point for the understanding of Auroville’s economy.

This chapter closes with a synthesis of aspects of Auroville’s productivity, which is closely linked with its “carrying capacity”, a term that has been coined to indicate the relationship between the size and dynamics of Auroville’s economy and the number of community members that can be ‘maintained’ at a modest living standard.

1.3.9 Synthesis and concluding observations: Chapter 9
The final chapter begins with synthesising statements for each of the phases that have been identified in this study, covering the first four decades of Auroville’s economy.

Next, each of the five principles that could be identified from the writings and sayings of Auroville’s founders are revisited to assess whether Auroville’s economy has stuck to the guidelines that are implicit in these principles.

Lastly, a meta-assessment is pursued to gauge Auroville’s sustainability and its coherence as a model for a durable and sustainable socio-economic development within the constraints, in this case in particular, of the Indian regulatory and legislative frameworks, which pose formidable challenges to this unique experiment.
Sun and wind harnessed for homes and public buildings

Top photo: 15-metre diameter solar collector on the roof of Auroville’s Solar Kitchen

Bottom photo: Matrimandir solar power plant, comprising 484 photovoltaic modules with total capacity of 36.3 KW.
Check dam construction in the Utility canyon, preventing top soil erosion and water run-off towards the sea.

Reforesting thousands of acres of denuded land with over two million trees and shrubs.
Production of high quality musical instruments at Svaram, using local resources and providing skills development and employment opportunities.

Packing premium body care products at Maroma.
Appendix 5

Auroville Population by Nationality (March 2008)

Auroville’s population statistics of March 2008 show a total of almost 2,000 residents, of which 454 are children and teens aged below 18. With 829 Indian residents at that time, India represents over 40% of Auroville’s total population. The remaining 58% is shared between 42 nationalities.

Total: 1,997 Residents (1,543 Adults) - 43 Nationalities

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<thead>
<tr>
<th>Nationality</th>
<th>Number</th>
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<tbody>
<tr>
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<td>829</td>
<td>42%</td>
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<tr>
<td>2 FRANCE</td>
<td>302</td>
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<tr>
<td>3 GERMANY</td>
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<td>4 ITALY</td>
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<tr>
<td>5 THE NETHERLANDS</td>
<td>81</td>
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<td>6 USA</td>
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Source: Auroville Residents Service
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