

ABSTRACTS:
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Ph.D. Dissertations

*Alternative Economic Development Strategies for Equitable
Income Distribution: A Social Accounting Matrix Analysis
of Indonesia*

Khalid A. N. AlOhalay
1992

Students of economic development have designed a number of development strategies for the developing economies. These strategies achieved various degrees of performance. However, work remains to be done in selecting the most appropriate development strategies for various developing economies. This study attempts to evaluate appropriate development strategies for large middle-income countries with rich natural resources. Indonesia serves as the case study for this project, as representative of such countries.

This dissertation views development as a comprehensive process and a connected chain of events among three important elements: production activities, factors of production, and demand. This study argues that these elements and the strong link among them are critical for effective development strategy. The link among these elements is one in which growth in production activities improves distribution of income for factors of production, which in turn leads to a rise in demand for goods and services, which eventually leads to growth of production activities. Hence, such links create a dynamic production process. Economic and political aspects are instrumental in creating cohesive linkages among these three elements.

We will use these three elements and the links among them as the bases for a framework for analyzing the performance of two major development strategies. Through this framework we show that the Import Substitution Industrialization strategy (ISI) fell short of achieving its objectives because of the absence of strong connections among these three elements. The Export-Oriented Industrialization strategy (EOI) achieved high economic performance in the context of Newly Industrializing Countries (NICs) because of the presence of strong links among these three elements. We will also employ this framework to evaluate three alternative development strategies for Indonesia, including the ISI and the EOI strategies. The third strategy is one which we develop in this dissertation, an agricultural-based strategy that builds on the links among the three elements of the framework.

In this study we use the Social Account Matrix (SAM) to conduct our evaluation of the three alternative strategies for Indonesia. The result of this evaluation confirms the view stated earlier about development strategies, that the performance of a development strategy is dependent on strong linkages among the three elements. In addition, the analysis shows that the agricultural-based strategy, because it builds on these links, achieves better results than the ISI

or the EOI development strategies. More importantly, this analysis indicates that development is better looked at in more comprehensive rather than narrow ways, and as a process rather than a single, specific event.

This dissertation proceeds by developing the framework of analysis. What follows is an evaluation of the general experience of the Import Substitution and Export-Oriented strategy according to this framework. Then we use the same framework to reevaluate these strategies in the context of Indonesia. Later, we perform an empirical test, using SAM framework, to compare the performance of the three alternative strategies in the Indonesian context. Finally, the concluding chapter provides policy recommendations.

*Industrial Policy and Firm Size in Development:
The Indian Case*

Subhrajit Guhathakurta
1991

What is the role of the state institutions in promoting industrial growth with equity? What is the strategy of a supportive agency that induces such growth?

The following investigation examines two manufacturing sectors in India and shows that regulation aimed at protecting the small-scale sector does not provide the necessary impetus for growth and survival of small industries. Rather, such regulation provides a fertile territory for larger businesses to avail themselves of undue rents through protected markets and regulatory loopholes. Thus, a new role for state institutions is suggested in the final analysis that builds on supportive networks that mitigate the disadvantages of scale, without onerous restrictions for others, and creates conditions for all scales of operation to survive and grow.

The two sectors selected, metal-furniture-making and the manufacture of television sets, operate at different technological levels. While the manufacture of television sets is of recent origin and belongs in the "high-tech" sector, the metal furniture industry uses processes that go back several centuries. However, policies designed for both of these industries emphasized small-scale manufacturing until 1979-80. Since then, the consumer electronics industries, including television, benefitted from increased liberalization and relaxation of licensing restrictions. Metal furniture industries, on the other hand, remained reserved for exclusive production in the small-scale sector.

This study of the two technologically disparate sectors in the Indian economy examines whether liberalization of the television industry after 1980 undermined social objectives, such as employment generation, to achieve higher levels of productivity and growth. The performance of the metal furniture industry is then assessed in terms of its contribution to the broad objectives for achieving growth with equity. Next, the two industries are compared along economic, sociological, and industrial organizational lines to determine the inherent differences and similarities between the two. It is argued that, after accounting for the industrial policies that have redefined market structures for the two industries, the operational differences between them are not significant. Thus, the study strongly suggests that the liberalization in the consumer electronic industry can activate other "low-profile," "low-tech" sectors as well with similar policy instruments.

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Regional Versus Local Accessibility: Variations in Suburban Form and the Effects on Non-Work Travel

Susan Leigh Handy

1992

This dissertation addresses the question of how particular forms of metropolitan development affect travel patterns, a question long of concern to planners but recently the subject of a heated debate. Critics identify sprawling, low-density, single-use, automobile-dependent suburban development as the problem, and recommend a return to the higher-density, mixed-use, pedestrian-oriented design practices of the past as the solution, particularly as a way of reducing non-work automobile travel. Yet the question remains: can these "neo-traditional" communities reduce automobile travel when implemented within the broader context of freeways and regional shopping malls?

The concept of accessibility provides an important tool for resolving this question. Accessibility measures the attractiveness of potential destinations and the cost of reaching them. By measuring both the accessibility to activity within the community, or "local" accessibility, and the accessibility to regional centers of activity from that community, or "regional" accessibility, the structure of a community and its relationship to the metropolitan area are more fully characterized. It is hypothesized that, for shopping trips, high levels of accessibility are directly associated with shorter distances and greater variety in destinations and indirectly associated with greater frequencies and some shift away from automobile use. Some degree of substitutability between local and regional accessibility is also hypothesized, suggesting that high levels of local accessibility may reduce the need for regional travel.

This dissertation defines quantitative and qualitative measures of local and regional accessibility and uses them to test the implications for shopping travel of alternative forms of development in a case study of the San Francisco Bay Area. An aggregate-level analysis shows a significant negative relationship between the length of the shopping trip and both local and regional accessibility, but no significant relationship with trip frequency. Accessibility is more thoroughly evaluated both quantitatively and qualitatively for four Bay Area communities, leading to several refinements in the definition and measurement of local and regional accessibility. A survey of residents in the case study areas reveals a more complex relationship, in that high levels of accessibility work to both decrease and to increase travel. The survey also shows that substitutability is limited: local accessibility seems to have little effect on regional travel. This dissertation concludes by reviewing policy implications, particularly the importance of finding an appropriate balance between the sometimes conflicting goals of minimizing travel and maximizing the range of alternatives available to residents.

Land Regulation and Housing Development in Jakarta, Indonesia: From the "Big Village" to the "Modern City"

Michael Leaf

1991

Many cities in capitalist Third World countries face the problem of ensuring an adequate supply of affordable housing to low-income households while shifting from unregulated to regulated housing production processes. Since the early 1970s, the government of Jakarta, Indonesia, has attempted to address this problem through a housing policy which can be described as a market-enabling strategy, intended to facilitate land and finance as inputs into the regulated housing delivery system. In addition to its social welfare goal, housing policy in Jakarta also functions as an important mechanism for transforming the image of the city from that of a "big village" into that of a modern metropolis.

This study examines the land component of this policy. Basic data sources include land use permit records, planning documents, and other government reports, in addition to interviews with government officials and private developers which were conducted over the course of 1990.

The long-term goal of Jakarta's housing policy is to foster the growth of the regulated private sector to become the principal provider of housing in the city. However, in so doing, housing production by the unregulated popular sector (*kampung* housing, which currently comprises the majority of the city's housing) is to be reduced and ultimately eliminated. The low-income residents who depend upon the popular sector for their housing are not being accommodated by the growing private sector. Thus, the outcome of policy is seen to be highly inequitable.

It is found that the welfare goal of housing policy is largely being undermined by the city's determination to create a new urban image. The urban form that is arising from this process excludes the majority of residents and promotes spatial segregation by income class. The welfare goal is also being undermined by the application of the land development permit system as the primary regulatory tool for implementing this policy, for the permit system has fostered the accumulation of a large reserve of lands which are held off the market by private developers. This "land bank" constricts the supply of land which is available for further popular sector development.

Environmental Management and Urban Development in the Third World: A Tale of Health, Wealth, and the Pursuit of Pollution from Four Cities in Africa, Asia, Eastern Europe, and Latin America

Josef Leitmann

1992

Environmentalists, both academics and practitioners, tend to deal with inter-generational problems of a global and rural nature, while often neglecting the immediate environmental conditions that especially affect the current generation of urban poor. Much of the writings and actions of urbanists focus on the economic and political dynamics of cities, with little attention to the environ-

mental dimension of urban development. Thus, the terrain at the nexus of environmental management and urban development has not been fully explored.

In order to intellectually provision an expedition into this territory, several guiding themes were derived from the fields of economic development, ecology, governance, and sustainable development. These themes were used to design a methodology for rapid urban environmental assessment, and a research expedition was mounted to cities in developing countries on four continents: Accra (Ghana), Jakarta (Indonesia), Katowice (Poland), and São Paulo (Brazil). A wealth of comparative information was developed from environmental indicator questionnaires, urban environmental profiles, and environmental town meetings to answer the following research question: how can strategies be formulated for managing urban environmental problems to enhance the economic productivity, health, and ecology of Third World cities?

Conclusions stemming from the analysis of this information were that:

- enhanced public awareness, consultation, and participation can improve environmental management;
- solutions that are not heavily dependent on institutional performance may be necessary in the short run;
- urban environmental strategies should have an explicit focus on the problems of the poor;
- city-specific strategies should be guided by the configuration of key economic variables; and
- careful attention must be paid to the selection of problem areas, their spatial scale, and institutional capacity when designing interventions.

Criteria for assessing and designing effective approaches to urban environmental management were developed, combining theoretical themes with these research findings. No existing *modus operandi* for addressing Third World urban environmental problems fulfill the criteria. To remedy this, an initial process for urban environmental management is proposed, consisting of rapid urban environmental assessment, a city-based environmental management strategy, and an urban environmental action plan.

Latin American Women Immigrants in Los Angeles: Conflicts between Home and Work Roles and Poverty

Elizabeth Joan Mueller

1992

Current discussions of poverty rest most often on theories focused on individual traits or behaviors. The most frequently offered alternatives have been based on theories of labor market segmentation. Both approaches take women's domestic roles as given and therefore their lower status in the labor market. This thesis challenges these assumptions by offering a third approach, in which the link between household organization and work is explicitly recognized and household form is seen as malleable.

This thesis presents the results of fieldwork conducted in a cooperative of domestic workers in Los Angeles. The cooperative members were all Mexican

or Central American. Using the results of data collected through participant observation and intensive interviews with selected women, the usefulness of current approaches is tested. While providing partial answers to the question of these women's poverty, enough contradictory data emerges to call the two dominant approaches into question as satisfactory explanations. In response, a third approach is suggested, focusing on the importance of household organization to women's ability to work. In households in which domestic work is more explicitly shared and women's wage work approved of, women are able to work more hours, thereby earning more money. By developing a typology of household organization, the diversity of households is shown and their structure made to appear more flexible and less culturally determined.

Price Changes in Metropolitan Rental Markets, 1974-1985

Michael Anthony Smith-Heimer

1992

This research examines rental housing markets and lower- and higher-income submarkets in several metropolitan areas over the 1974-1985 period, evaluating the presence of filtering. The general concept of filtering is outlined, and the theoretical impediments to the housing unit filtering are reviewed. The research contrasts "welfare" filtering with the generalized concept of filtering and evaluates the concept as a criterion for assessing housing market operations from a public-policy perspective. This "welfare" filtering conceptualization requires that the constant quality price for a mean unit declines over time, reflecting welfare improvements to renters.

Seven metropolitan areas are selected based on variations in supply and demand characteristics, with theoretical literature positing that high-supply/low-demand areas would experience declining constant-quality prices. Supply and demand characteristics for these metropolitan rental housing markets are assessed, and the general market conditions are summarized using several measures of rental market supply and demand stresses. Then, recent movers from a series of housing unit panels drawn from the Annual Housing Survey Metropolitan Series Files are segmented into submarkets using income and rent differences, and hedonic regression parameter estimates developed from recent mover price information are used to construct constant quality housing prices for rental units in each metropolitan submarket in several time periods.

Research results indicate that none of the metropolitan submarkets experienced welfare filtering, despite a wide range of supply and demand conditions. The research suggests that high levels of housing construction are not a sufficient condition to generate welfare filtering, and probes the public policy implications of the research findings.

Urban Household Energy Use in Thailand

Stephen Roger Tyler

1992

Changes in household fuel and electricity use that accompany urbanization in Third World countries bear large economic and environmental costs. The processes driving the fuel transition, and the policy mechanisms by which it can be influenced, need to be better understood for the sake of forecasting

and planning, especially in the case of electricity demand. This study examines patterns of household fuel use and electrical appliance utilization in Bangkok, Chiang Mai, and Ayutthaya, Thailand, based on the results of a household energy survey. Survey data are statistically analyzed using a variety of multiple regression techniques to evaluate the relative influence of various household and fuel characteristics on fuel and appliance choice. Results suggest that changes to the value of women's time in urban households, as women become increasingly active in the labor force, have a major influence on patterns of household energy use. The use of the home for small-scale commercial activities, particularly food preparation, also has a significant influence on fuel choice. In general, household income does not prove to be an important factor in fuel and appliance selection in these cities, although income is closely related to total electricity use. The electricity use of individual household appliances is also analyzed using statistical techniques as well as limited direct metering. The technology of appliance production in Thailand is evaluated through interviews with manufacturers and comparisons of product performance. These data are used to develop policy recommendations for improving the efficiency of electrical appliances in Thailand by relying principally on the dynamism of the consumer goods market, rather than direct regulation. The annual electricity savings from the recommended program for fostering rapid adoption of efficient technologies are estimated to reach 1800 GWh by the year 2005 for urban households alone.

Professional Reports, M.C.P. [partial listing only]

Neighborhood Design and Individual Mobility: Rethinking People's Neighborhoods and Their Cars

Carl M. Maxey

1992

Two emerging crises facing California's cities and suburbs are heavy traffic congestion, which brings our personal mobility to a near standstill, and the high cost of housing.

The transportation problem stems from the fact that conventional technology has exceeded the limits of its efficiency. New-technology vehicles already exist, yet we still design communities based upon the conventional automobile's functional requirements. Heavy vehicles require substantial infrastructure and extensive terrain modification on sloping sites. Clearly, we devote a tremendous portion of our land to vehicle access and parking. We can lower the costs of housing and reduce environmental impacts with a combination of new land use assumptions and new vehicles. This report examines neighborhood and community design strategies at the intersection of transportation and land use issues.

The approach presented in this paper marks a fundamental departure from previous community design approaches in that it relies on private transportation to increase mobility and to reduce environmental impacts. Communities can realize three important benefits from adopting the strategies described in this report:

- *greater individual mobility for lower cost*

- *less physical damage to the environment arising from development and pollution*
- *improved quality and social potential of neighborhoods*

Part 1 of this paper examines the idea of vehicle specialization as it concerns neighborhood design and looks at selected neighborhood vehicles available now, such as electric golf carts and gas-powered service vehicles.

Part 2 reviews historical approaches to neighborhood and community design, including several recent alternative approaches.

Part 3 presents four neighborhood scenarios developed with the assumption that neighborhood vehicles will provide all the personal motor transportation within the community. Illustrations of each scenario portray what it would be like to live in such a community.

Part 4 contains recommendations for developing the ideas further, implementing and evaluating design interventions, and tailoring projects employing the new approach to the housing market.

Though some of the ideas presented here have not been used for community developments, they offer distinct possibilities and are worthy of further consideration.

Transportation Energy Impacts of Jobs-Housing Balance

Terrence W. O'Sullivan

1992

This paper examines the transportation energy impact of variations in jobs-housing ratios for suburban employment centers. Increasingly, suburban centers characterize today's decentralized metropolitan urban form. With this decentralization often comes regional-scale urban problems including suburban freeways reaching capacity, lengthening commutes, regional energy inefficiency, deteriorating environmental quality, and social justice concerns. Planners often advocate for improved jobs-housing balance in the commute zones around these suburban centers to address traffic and air quality concerns. This paper seeks to add a transportation energy component to those arguments in favor of subregional jobs-housing balance. Further, the paper uses transportation energy as an indicator of overall environmental resource efficiency for variations in this urban form.

To approach these issues, the research focuses on a case study of the Livermore-Amador Valley (LAV), a rapidly growing suburban employment center near the urban fringe of the San Francisco-Oakland Metropolitan Region. The paper develops a simplified transportation energy model; it then uses the model to analyze a 1985 study that projected freeway capacity impacts of different jobs-housing balance scenarios for the LAV.

The research results indicate that a balance of jobs and housing in a subregion will result in less vehicle fuel consumption than if the subregion did not have jobs-housing balance. (This finding assumes that the private automobile remains the central focus of the transportation system.) Using gross numbers, for example, a Year 2005 Livermore Valley scenario with jobs-housing balance would consume one-third of the transportation energy as a scenario based on the area's current general plans. (More specifically, the analysis reveals that in

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suburbs, where most trips will continue to be by automobile, the key to greater transportation energy efficiency is eliminating long auto trips.)

This finding implies that the area's General Plans (as of 1990) would result in proportionately more air pollutants, more energy dollars leaked out of the regional economy, and more "greenhouse gases" leaked out to a warming planet, than if local plans were "balanced" with respect to subregional jobs and housing.

It is with these goals in mind – resource efficiency, environmental quality, and economic efficiency – that Part 2 of the paper discusses jobs-housing balance policymaking for the Livermore-Amador Valley. It recommends "jobs-housing range" as the appropriate performance indicator, in order to match the income characteristics of subregional jobs and housing units, as well as their quantities.

Securing the Future: Environmental Issues as a Priority in South Africa

Anne Schonfield

1992

This paper examines three environmental issues that will be critical to South Africa's future security and development. Beginning with an overview of South Africa's traditional security concerns and the debate over environmental security in the U.S., the study suggests that a new, more inclusive definition of security will be needed in post-apartheid South Africa. Land distribution, population growth and distribution, and mineral resources should be among the nation's new security priorities because they involve tremendous racial inequity and environmental problems, which could lead to social unrest and instability if these issues are not addressed by the new government. The report concludes with the policy implications of environmental security in South Africa and argues that, as a stability concern, environmental issues should receive more government resources and attention, and the complex interactions between resource issues, equity, and security must be recognized.

Copies of the report are available through "Pacific Institute for Studies in Development, Environment, and Security," (510) 251-1600.

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David Simpson is a doctoral student in DCRP at UCB who is almost, but not quite, prepared for the next earthquake in the Bay Area. His research focuses on the interaction of society with environment, and at present that has meant basic land use; risk, the environment, and natural hazards; and the institutional arrangements and designs for planning.