

Development Administration and Computer Databases: A Case Analysis

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This article describes the author's experience overcoming the present day dilemma of research overload due to rapid advances relating to information technology. Development administration is multidisciplinary in nature, which essentially means direct and indirect influences from a variety of fields and sub-fields like public administration, sociology, political science, management, engineering, health, agriculture, and others. Consequently, this means sorting through a huge amount of literature stored in a number of expanding electronic databases. How does one muster this modern-day issue? In this article, the author elaborates on the systematic three-phase process he used to determine the extent of development administration research on the sustainability of health care projects at the village-community level.

Introduction

In this era of databases compiled in high-volume hard drives, diskettes, and tapes, CD-ROMs, on-line networks and systems, and recently web-sites, information now abounds on almost any topic or area a research scholar can conceptualize. However, this phenomenal growth of high speed access to large-scale information has its pros and cons. For instance, a big advantage of computerization and access to databases is that it gives one an abundant amount of information to gather, process, and analyze, making his or her research very exhaustive. But the amount of information that databases yield can be quite overwhelming and unbounded. Given time and resource constraints, a serious challenge facing researchers who wish to take advantage of this type of high technology is how to reduce the size of the information output from a database search and at the same time be able to maximize the search results. This article describes the author's experience in overcoming this present-day dilemmas. After all, development administration is multidisciplinary in nature, which essentially means influence from a variety of fields and sub-fields like sociology, political science, management, engineering, health, agriculture, public administration, and others.

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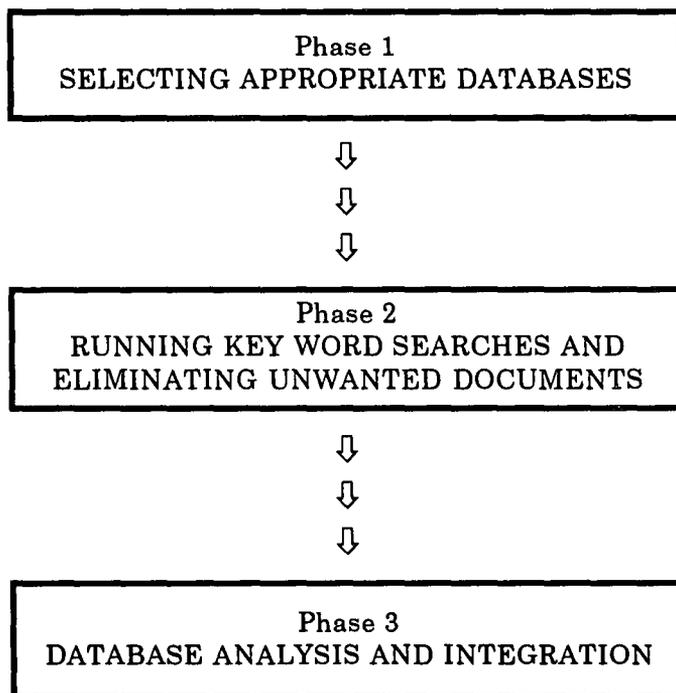
Consequently, this means sorting through a huge amount of literature in a number of electronic databases.

This study describes the process in the actual database search which was used to determine the extent of development administration research on the sustainability of health care projects at the village community level. Project sustainability is defined here as the capacity of a development endeavor to continue beyond the start-up phase or donor support. It was a development administration buzzword started in the 1980s but is still quite relevant to the 1990s. However, the author feels that concern for project sustainability needs to expand into other sectoral areas of concentration like health care. Hence, this database search was conceived to justify both qualitatively and quantitatively this research intention.

The Three-Phase Process

This section of the article elaborates on the database search's three-phase approach. They are: (1) selecting the databases, (2) running the key word searches and purging the unwanted "hits," and (3) analyzing and integrating the findings. Figure 1 below explains the flow of this three-phase approach.

Figure 1. Three-Phase Approach to Database Analysis



Phase I: Selecting the Databases

The general databases for the study were limited to: (1) academic databases on development, and (2) bilateral and multilateral development organizations. These general categories were further broken down into two subcategories: CD-ROM databases and On-line Library Catalogs.

As mentioned in the earlier section, the study of development administration has received influences from a variety of disciplines so this initial selection of databases was structured to catch as many published and unpublished books and articles as possible. The CD-ROM databases included for the study had to reflect this multidisciplinary nature, hence some of those chosen targeted the social sciences like Social Science Index (SSI), Humanities Index, Sociofile (SOPODA & Sociological Abstracts), Dissertation Abstracts, and Economics Literature Index while the other selections were taken from more specialized data repositories like Nursing and Allied Health, TOXLINE, HealthPLAN, MEDLINE, Hospital Literature Index, ERIC (for education), and AGRICOLA (for agriculture). The literature coverage of these CD-ROM databases is found in J. Barg (1990), J. Barg (1991), and K. Marcaccio (1992).

The On-line Library Catalogs accessed (or received permission to access) representative libraries from the East Coast, West Coast, and Midwest or intermountain West. They were selected for their geographic representation as well as specialized collections. These were: University of Utah On-line Library System (UNIS), University of California and California State Universities (MELVYL), Colorado Association of Research Libraries (CARL), and Harvard University On-line Information System (HOLLIS). Bilateral and multilateral development institutions that were accessed included: the United States Agency for International Development (via USAID Database), the World Bank (via Bank Reports Bibliography in All-In-One), the United Nations Development Programme (UNDP), the Organization for Economic Cooperation and Development (OECD), and the Ford Foundation. All of these selected institutions are established in the practice of development administration.

Phase II: Running the Key Words Searches

Phase II of the study involved the analysis of the selected data sources for works pertaining to "project sustainability." Using "sustainability," "sustainable development," "project" and "program sustainability" as key words, the initial wave of searches had more than 5,000 document "hits." The initial review process eliminated records outside the operational definition of the study, e.g., sustainable theology, religion, medical procedures, and military defense. In addition, the elimination process further limited the sample size to works on project sustainability within a ten-year period from 1981-1990. The

data sources that did not yield information relevant to the study were also eliminated. For example, Phase II resulted in the removal of the Humanities Index and CARL from the final data set since the records found in these data sources were duplicated in the Social Science Index and UNIS databases. Moreover, Nursing and Allied Health was eliminated because it has no records. The nine records in TOXLINE did not deal with project sustainability as operationalized in this study. Some records found in the Dissertation Abstracts database were also eliminated. A further review of the records in the Dissertation Abstracts also revealed that some of these works were already published in articles found in the Social Science Index and Sociofile. In addition, the Dissertation Abstracts and CARL records duplicated the project sustainability literature already found in UNIS, MELVYL and HOLLIS.

The author's request for information addressed to the different agencies that specialized in carrying out development administration activities yielded substantive quantitative information only from the USAID and the IBRD. An examination of the available library information (i.e., annual reports and publications catalogues) and communications provided by various offices at the OECD, UNDP, and Ford Foundation indicated that these institutions have carried out few direct field projects and activities pertaining to project sustainability. Most of their activities on this issue concentrate on limited support at the international mandate level and the environment. However, this trend seems to be slowly changing in the 1990s.

After these filtering procedures, the study was left with a more manageable 2,000 works. Abstracts of each of these documents were viewed and reviewed to further trim down the dataset size. Some documents were unclassifiable and hence were also eliminated from the group. Phase II culminated in the coding and tabulation of the final dataset into worksheets. As the coding went on, more purging was conducted to reduce overlapping and duplication of works by authors. The final tally was 591 records on project sustainability.

Phase III: Analyses and Integration of the Findings

Phase III involved the utilization of descriptive statistics to provide a qualitative and quantitative summary of the contents of each of the 591 records on project sustainability. Phase III involved a three-dimensional analysis that sought to evaluate the trend, locus, and focus of the documents on project sustainability. Statistics were utilized to make the conclusion and recommendation of the study more robust and thus more convincing.

(1) *Trend Analysis*

The *trend analysis* traced the growth pattern of project sustainability in the 1980s, especially after "planned development" in the 1960s and "implementable development" in the 1970s. The trend analysis illustrates the increase or decrease of the number of academic literature on project sustainability vis-a-vis the year they were written or carried out.

A subdivision of the time frame was performed after a pre-analysis of the records indicated that there would be significant differences in the actual analysis if the ten-year period was further subdivided into two five-year periods. These two periods were as follows: pre-Brundtland (1980-1985) and post-Brundtland (1986-1990). This was done to see if the 1985 Brundtland Conference on Sustainable Development had any significant effect on the overall trends.

Academic Literature. An analysis of the trend in the Social Science Index (SSI) database confirms the argument that the trend towards the issue of project sustainability is growing. From 1981-1985 there were no articles written on project sustainability in the SSI. This changed during 1986-1991 when there was a significant increase in the number of articles written on this development issue. This development goal peaked in 1988 when 16 articles were written on project sustainability. The 1990 figure could have shown the highest increase yet but the SSI database only covered works until October 1990.

The pattern shown in the analysis of the Sociofile database showed a slight variation in trend from the SSI analysis. The Sociofile evaluation indicated that from 1981-1985, articles on project sustainability had already begun to be published in sociology-related journals. It increased significantly from 1986-1990 until a peak of thirteen articles was published in 1989. The 1990 number could have been higher but the Sociofile database had cataloged works only until August 1990. This limitation was similar to the one encountered with the SSI data.

One could also argue that the decreasing numbers in the SSI and SOCIOFILE databases could mean a shifting in trend from project sustainability to another development administration issue for the 1990s. The next ten years could be the decade of "replicable development." This means development administration's concern will be elevated to the replication of the characteristics of sustainable projects across a variety of cultures, countries, and sectors. Precursor works to this next trend are those of R. Heaver (1984) and A. Israel (1987) of the World Bank. In their studies, Heaver and Israel prescribe the replication of the agricultural sector's highly successful training and visit (T&V) system for the health care and education sectors of a variety of

countries and in different cultural settings. In line with global changes, replicable development could also motivate development agencies to replicate the characteristics of sustainable projects from the less developed countries of Asia and Africa to the village economies of Central and Eastern Europe.

The author's evaluation of HealthPLAN reinforced the findings of the two predominantly social and behavioral science databases (SSI and SocioFile) that there is a growth in trend towards studies on project sustainability. A difference between SSI, SocioFile, and HealthPLAN is that the trend seemed to have picked up later in the health and allied areas as opposed to the social and behavioral fields. The HealthPLAN evaluation revealed that there were only five articles on project sustainability from 1981-1988. Later in the decade (1989-1990), the number of project sustainability studies increased to 24.

A review of the published works contained in the University of Utah's UNIS indicated that there has been a growing concern for project sustainability in the academic literature. The UNIS was sampled to represent the research trend on this issue from the midwestern region of the United States. From 1981-1985 there were only three books for this five-year span and all of them were published in 1981. This trend slowly changed significantly starting from 1986 to 1990 when 45 works were done on this development administration issue. In 1991, the growth trend reached its highest level of increase at thirteen published works.

The Western research trend in the United States regarding this development issue was tested by a sampling from California's MELVYL library network system. The trend analysis indicated a pattern parallel to the UNIS analysis. From 1981-1985 there was a steady increase of project sustainability literature. This trend reached significant change levels from 1986 to 1990, when there was a highly noticeable average increase of almost ten works per year on project sustainability.

Harvard University's HOLLIS database network was selected to represent the research trend sampling from the Eastern region of the United States. The library database network HOLLIS manifested similar findings as its two other library network counterparts in the West and intermountain West, i.e., UNIS and MELVYL, especially regarding the trend of concern for project sustainability. HOLLIS' literature on project sustainability from 1981-1985 totaled only three works for that five-year span, whereas from 1986-1990, 53 works were published on project sustainability. The most significant increase came in 1988-1989 when the number of works doubled from eight to 16. Other less significant increases also occurred in different periods.

Development Institutions. Project sustainability became a trend not only in theory but also in practice, as confirmed by the large number of

commissioned and financially supported field studies on this development goal by the USAID, UNDP, IBRD (World Bank), OECD and other aid granting institutions (see Honadle 1981; Van Sant 1987; USAID 1988; Bossert *et al.* 1986, 1987; Bossert 1989; Dunlop *et al.* 1989; Lipton 1989; Mock *et al.* 1990).

If there is any bilateral organization in the world that has had a significant contribution to the area of development administration, it would be the USAID. The analysis performed by the researcher on all 119 USAID project documents in the USAID's Center for Development Information computer database that dealt with project sustainability over a ten-year period from 1981-1990 showed the growing concern of USAID on the issue of project sustainability as reflected by the number of projects they performed. From 1981-1987, there was a one-project document per year rate of increase on project sustainability projects. It also indicated that there was a significant increase from six documents by the end of 1986 to 23 documents by the end of 1987. From then on, the increasing concern continued until a 1991 number of 29 project sustainability projects.

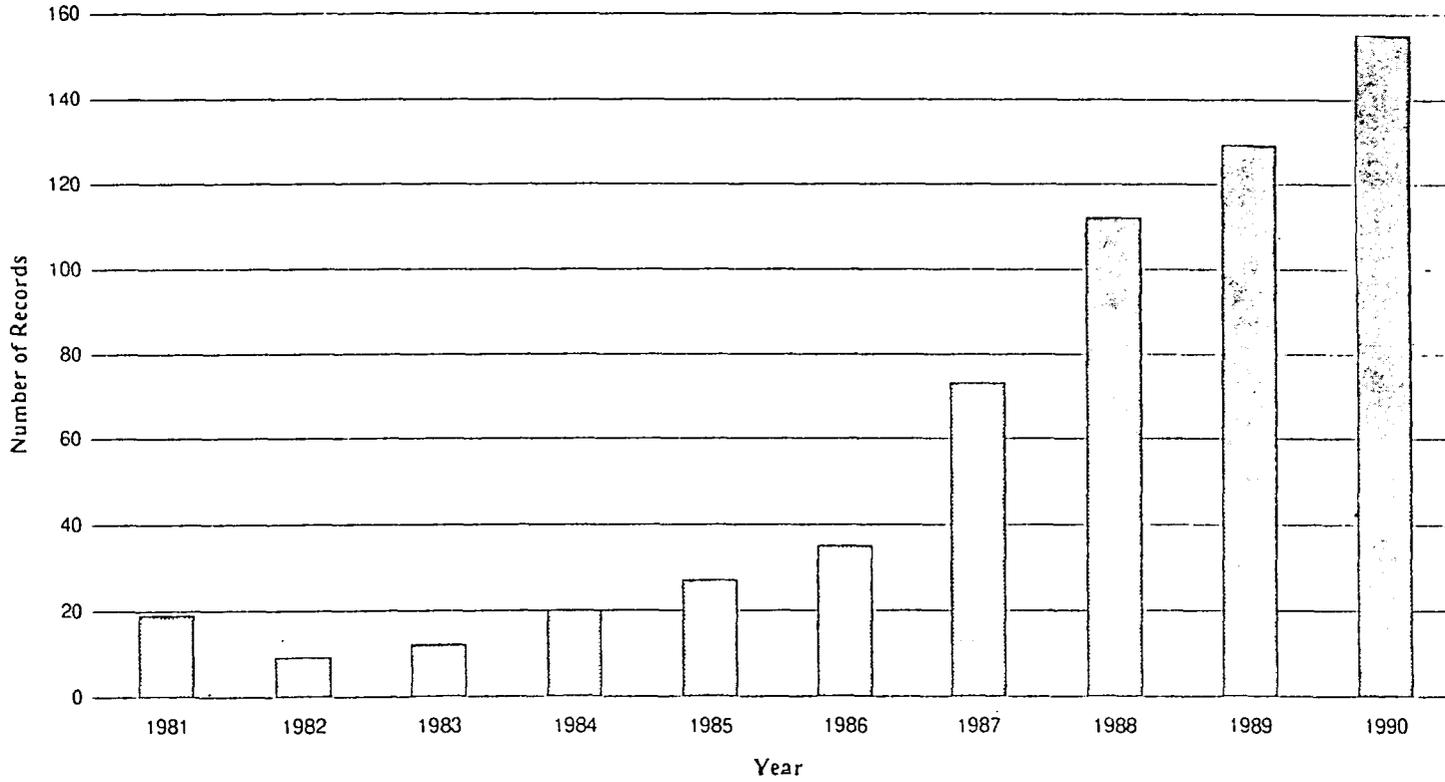
Described here is an interpretation of the tabulation performed on the 38 project documents from the International Bank for Reconstruction and Development (IBRD) database that dealt with project sustainability. This was for a ten-year period from 1981-1990. The 38 development administration projects conducted by the IBRD again confirmed the growth in concern for project sustainability practice. Although IBRD President A.W. Clausen started the decade with a lecture on the value of project sustainability, the growth rate of concern for the issue increased only in 1984. During 1984, six IBRD projects incorporated the concept of project sustainability. This number increased in 1985, the Brundtland conference year. In the years 1986, 1987, and 1989, the IBRD experienced decreases in the concern for project sustainability. In addition, the years 1988 and 1990 produced the highest increase rate during the decade with seven and ten projects, respectively.

Both theory and practice showed that project sustainability is on an upward trend towards the 1990s. This meant that after experiencing a slow start in the years from 1981-1984, the post-Brundtland years from 1985-1990 showed significant increases in attention in the scholarly literature in universities all over the United States. This also meant that there was integration of this development issue into actual field projects by development agencies. Figure 2 is a summary of the results of the trend analysis.

(2) *Locus of Analysis*

Locus of Analysis signified the place (or level) where the project sustainability academic literature and development project types concentrated.

Figure 2. Project Sustainability: Trend Analysis



The following were the possible loci of analysis: (1) international (or global) level, (2) national (or nation-state) level, and (3) village-community level.

These three categories were determined after a pretabulation of documents and projects indicated that these three categories were the ones that would have adequate samples for proper analysis. A pre-analysis of the number of documents and projects whose locus of analysis were the regional and "growth-center" (or provincial) revealed insufficient figures for accurate statistical analysis. Hence, the records on the regional and provincial levels were integrated into the nation-state category. After all, these levels have been notorious for being extensions of centralized state power in most less developed nations.

Theory. There were 46 project sustainability articles in the SSI database. An evaluation of these articles revealed that 63 percent concentrated their locus of analysis at the national level. Meanwhile, 32.6 percent of the articles devoted their locus of analysis to the international level. Only two articles or 4.3 percent of the SSI articles from 1981-1990 had the village as the locus of analysis.

The SOCIOFILE findings reinforced the SSI findings because 63.8 percent of the 36 articles on project sustainability had a national-level locus of analysis. The difference between SOCIOFILE and SSI was that there were more articles that had the village (25 percent) as a locus of analysis than the international level (11.1 percent) in the former.

The data from HealthPLAN revealed a significant difference from the rest of the databases and development institution data evaluated. There was an almost equal distribution of the 29 HealthPLAN articles into the three loci of analysis. The village and international levels as a loci both had 34.4 percent (or ten each) of the 29 articles.

The nation as a locus was not far behind with 31 percent (or nine) of the total number of articles. The HealthPLAN findings can be the basis of the argument that in the medical and health care fields there is an equal distribution of attention accorded to the three loci of analysis as compared to the other fields of study.

The evaluation of the academic literature in the University of Utah's UNIS system revealed that 50 percent of the project sustainability works in this database concentrated their locus of analysis on the national level. This was followed by 37.5 percent of the records found in the database dealing with the international level as the locus of analysis. The village level was the least studied at 12.5 percent of the books on project sustainability found in the UNIS.

Compared to the UNIS and HOLLIS, California's MELVYL system provided the most works on project sustainability at 219 records. The results of the analysis, however, revealed that volume did not matter because there were similar patterns with the UNIS and HOLLIS despite their smaller number of records. In MELVYL, 48.4 percent of the 219 records concentrated their locus of analysis on the national level. This was closely followed by the 44.7 percent of the MELVYL books on project sustainability which utilized the international level as their preferred locus of analysis. Again, the village level came in with the least number of books among the three loci with 6.8 percent of the records in the MELVYL.

Harvard University's published collection on project sustainability further reinforced the pattern the researcher presented from the Western and midwestern U.S. libraries. The analysis of the records found in HOLLIS revealed that 57.1 percent of the project sustainability books in Harvard library network concentrated on the national level as the locus of analysis. This percentage figure was followed by 30.3 percent of the books concentrating on the international level as their locus. Again, the village community as a locus of analysis had the least percentage compared to the two other loci at 12.5 percent of the total works in HOLLIS' project sustainability collection.

Development Institution. In practice as in theory, project sustainability with the village as the locus has not yet been adequately addressed. However, in the middle to the late 1980s, concern for sustainable village development slowly increased in various projects by development scholars.

An analysis of the same USAID documents the researcher found illustrative of the increasing trend of concern for project sustainability revealed that an overwhelming 78.9 percent of the activities supported by the USAID concentrated on national level programs. Meanwhile, only 19.3 percent of the 119 projects conducted from 1981-1990 dealt with project sustainability at the village level. The 1.6 percent for the international level of focus was an understandable figure since it is at this level where guiding mandates are developed and integrated in international world conferences (e.g., Brundtland Commission). It is interesting to note that greater attention has started to be accorded to the village level. The data tabulation indicates that from 1981-1985, there were only three USAID projects on project sustainability at the village level compared to 20 projects from 1986-1990. This indicates a shifting of emphasis to the area where the researcher believes the greatest attention should be given, because the village level is where the majority of the rural poor and underprivileged in Third World nations live and work.

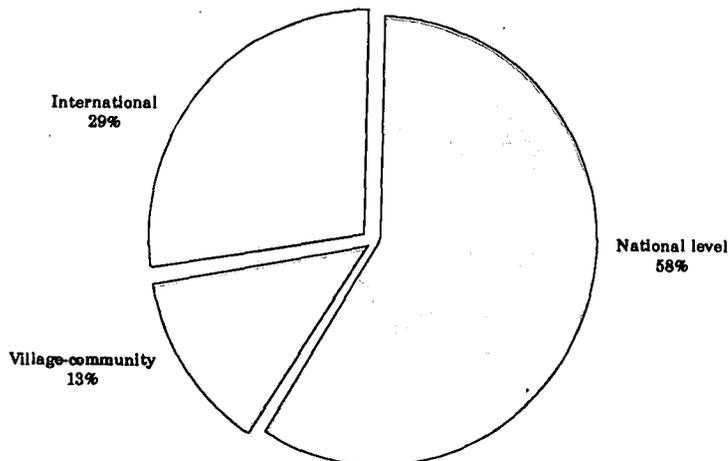
Unlike the large number of USAID projects devoted to the issue of project sustainability, the IBRD had only 38 projects from 1981-1990. An

overwhelming 78.9 percent or 30 of the 38 projects conducted by the IBRD dealt with this issue at the national level. Compared to the USAID, there were more IBRD projects having an international-level locus of analysis as opposed to a village-level locus.

The findings on the locus of analysis of documents on project sustainability indicated that the academic literature (e.g., Mikesell 1983; Lipton 1989; Browne 1990) and field projects (e.g., Baneth and Grilli [for IBRD] 1985; Brinkerhoff *et al.* [for USAID] 1990; UNDP 1990) were largely concentrated on the national level as a locus of analysis. Other examples of works on project sustainability that concentrated on the nation-state level are the ones published in the special issues on "sustainable development" in *Futures and Development*. More academic literature had a locus of analysis at the international level than had a locus of analysis at the village community level.

The village as a locus of analysis only represented 12.69 percent of the total sample population of 591 project sustainability records. Concern for project sustainability at the village level is higher in development organizations (16.5 percent of 157 records) than in academic institutions/databases (11.2 percent of 434 records). An examination of the trend in the last five years (1986-1990) reveals that there has been a continuing growth in concern for the village level as a locus of analysis in both the academic institutions and development organizations. It is hoped this growth pattern would continue until the 1990s to balance the overwhelming majority of records devoted to the nation-state level. Figure 3 illustrates the overall findings of the locus analysis performed.

Figure 3. Project Sustainability: Locus of Analysis



(3) *Focus Analysis*

Focus of analysis denotes the sectoral concern of the project sustainability literature and development project. The focus of analysis may be in any of the following areas: (1) agriculture and the environment (agri/enviro), which includes forestry, aquaculture, and other ecological concerns; (2) health which includes food, family planning, sanitation, immunization, nutrition and other allied concerns; (3) micro-industry (or micro-enterprises), which covers small-business, cottage industry and other small-scale income generating projects; and (4) not specified (NoSpec), which means the document or project had no specified area of concern.

Certain sectors (e.g., education, power generation) did not yield sufficient samples to be included in the larger graphical analysis. The researcher inquired from staff members at several development institutions about this lack of attention to other areas outside of the four general classifications. Staff members responded to the researcher's inquiry by stating that "project sustainability is a new trend." Therefore, development institutions were just beginning to promote project sustainability to other areas such as housing, power generation, and education.

Theory. The review regarding the project sustainability articles found in the Social Science Index indicated that 76.0 percent of the articles concentrated on agriculture and the environment as their focus of analysis. Meanwhile, 17.3 percent of the articles had no specific locus of analysis. Lastly, a small 6.5 percent dealt with micro-industry as a focus of analysis.

The analysis revealed that none of the articles on project sustainability in the Social Science Index had health as a focus of analysis. This could be attributed to SSI's limited coverage of health and health-related journals.

The examination of articles on project sustainability indexed in SOCIOFILE revealed a slightly different pattern from the SSI evaluation. Less than half of the articles (44.4 percent) dealt with agriculture and the environment as a focus of analysis. Project sustainability articles with no specific focus of analysis followed agriculture and the environment with 38.8 percent of the articles. Another shift in the SOCIOFILE pattern vis-a-vis SSI was concern for health as a focus of analysis at 13.8 percent. This could be attributed to the larger selection of health and health-related journals which are indexed in SOCIOFILE (e.g., *Social Science and Medicine*). Micro-industry was the focus of analysis in only 2.7 percent of the articles.

Being a predominantly medical and health-oriented database, HealthPLAN as compared to the other social and behavioral science databases was dominated by health-related project sustainability articles. Seventy-five

percent (22 of 29 records) of the HealthPLAN articles focused on health. The environment and agriculture as a focus of analysis followed with 24.1 percent (7 of 29 articles). There were no articles in HealthPLAN that focused on micro-industries and integrated sectors.

The books on project sustainability found in the University of Utah's UNIS system showed that an overwhelming 85.4 percent of the works cataloged were focused on agriculture or the environment in their analysis. Those that had no specified focus of analysis followed with 14.5 percent. However, there were no books that specifically dealt with health and micro-industry as an important focus of analysis for project sustainability.

The results of the analysis on the academic literature in California's MELVYL system varied only slightly from the pattern found in the UNIS and HOLLIS. MELVYL had 75.8 percent of its works on project sustainability focusing on agriculture and the environment as a subject of analysis. Meanwhile, works that had no specified focus of analysis composed 21.9 percent of the MELVYL data set. The slight variation was in health and micro-industry where the researcher found 0.9 percent and 1.3 percent (respectively) of the project sustainability works in MELVYL using these sectors as a foci of analysis.

Harvard University's HOLLIS library network system collection of project sustainability documents had a focus of analysis pattern that was similar to the University of Utah's UNIS library network system's collection of project sustainability documents. HOLLIS had 75 percent of its project sustainability books focused on the analysis of issues relating to agriculture and the environment. Harvard's HOLLIS also had 25 percent of the literature on project sustainability in it with no specific sector as focus of analysis. As in the University of Utah's UNIS, California's MELVYL had no books focusing on health care and micro-industries.

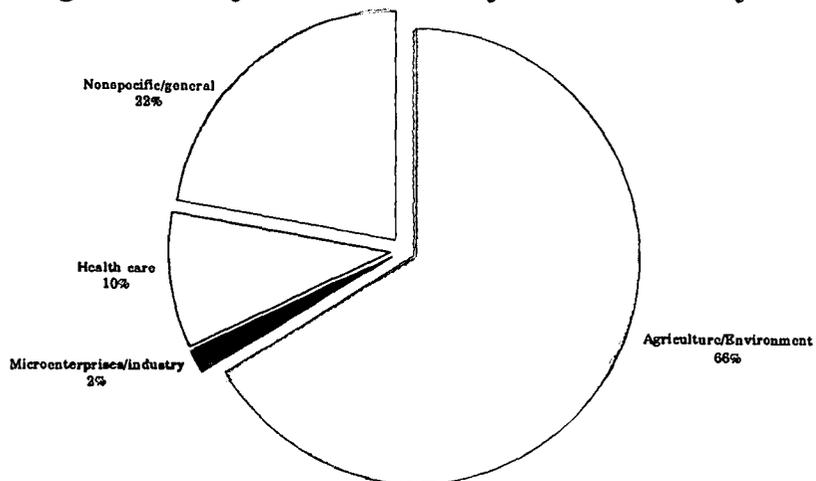
Development Institution. The review of the development projects performed by the USAID on project sustainability revealed that agriculture and the environment were also the most common focus of analysis at 50.6 percent of the projects. What was surprising was that health focus of analysis came in next to agriculture and the environment with 22.6 percent of the projects performed on project sustainability. Moreover, 15.9 percent of the USAID projects had no specific sector as focus of analysis, whereas 1.6 percent of USAID's project dealt with project sustainability in micro-industries.

As opposed to the USAID findings, a majority (55.26 percent) of the IBRD project sustainability projects from 1981-1990 were not focused on a specific sector. Nevertheless, projects that had agriculture and the environment as a focus of analysis were 36.8 percent of the total figure. These were followed by

projects on health at 5.2 percent and micro-industries at 2.6 percent of the total number of IBRD projects on project sustainability from 1981-1990, respectively.

After reviewing the academic literature and project documents on the focus of analysis of project sustainability, the researcher found that both concentrate heavily on the same sectors—agriculture and environment. The surprising discovery is that this emphasis on agriculture and environment has been to the detriment of attention to health and other areas as a focus of analysis. Health as a focus of analysis represented only 9.8 percent of the 591 academic literature and field projects evaluated. In addition, the integration of the findings revealed that development organizations (18.4 percent of 157 records) had greater emphasis on health as opposed to academic institutions (6.6 percent of 434 records). The SOCIOFILE and the USAID sample populations provide us with indications that there has been growing significant attention to the health sector in the last five years (1986-1990). This growth pattern, it is hoped, would spread to the other institutions and agencies and continue until the 1990s to balance the overwhelming majority of records devoted to agriculture and the environment. Figure 4 is a summary of the findings.

Figure 4. Project Sustainability: Focus of Analysis



Summary and Conclusion

Figure 5 is an aggregation of the overall findings using the three-dimensional analyses pertaining to the growth of project sustainability in both theory and practice.

Figure 5. Overall Findings of Phase III: Database Analyses

<i>Type of Analysis</i>	<i>Academic Concern</i>	<i>Field Application</i>
Trend Analysis	Increase	Increase
Locus of Analysis	National level	National level
Focus of Analysis	Agriculture & Environment	Agriculture & Environment

The quantitative and qualitative analysis of the academic literature and field projects on project sustainability indicated that this 1980s development administration issue drew support from both academic researches and field applications. However, the focus and locus of this development administration trend seem to be concentration on certain overstudied areas.

Based on these trends, the author recommends that future research support should be channeled to the understudied areas of health care as a focus and the village community as a locus. This is also the reason why this study is a significant one. Notwithstanding the importance of the nation-state and the agriculture/environment, the author argues that a ranking of priorities should not hinder concurrent attention to other areas such as health or the village-community level. A neglect of burgeoning health care issues could be as disastrous as a neglect of income generation and the environment. The results of this pre-grant database research greatly facilitated the receipt of NGO funding for a full-scale project on the role of participatory development in health care sustainability at the community level in the Philippines.

In addition, the author strongly believes that more emphasis should be given to the village community and its institutional capacity to sustain development projects. Recent world events have shown that political and economic analysts should not underestimate the strength and power of societal factors and participatory community groups in counteracting the power and strength of the state. Other new themes of development studies include decentralization and public-private partnerships. Both of these have strong and serious implications for this locus of attention. The village community in developing nations is where the power and capacity of the people could be harnessed to help propel project sustainability and efficient local autonomous administration thereafter. Aspirations of neutralizing the excessive power of the nation state could be reinforced through the empowerment of the village community and its institution-building capacity (see Migdal 1988).

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