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**Development Entrepreneurship (DE) Program
Massachusetts Institute of Technology (MIT)**

IDRC Project N. 103954-001
Final Report

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A. Example Business Plans & Projects

1. Summary

The primary mission of the Developmental Entrepreneurship Program (DE) project and the subsequent spinoffs including the Legatum Center, the Next Billion Network, and Development Ventures aimed to improve and enhance the potential of private sector grass roots entrepreneurship in developing countries to alleviate global poverty.

DE at the Massachusetts Institute of Technology (MIT) has been an important global catalyst in the fulfillment of this objective. We estimated that the initial modest investment by IDRC was able to leverage over \$70 million associated with DE spinoff initiatives such as the Legatum Center, the Next Billion Network, EPROM, and the venture capital invested in start up companies which had roots at MIT.

As a premier institution for technological innovations along with its entrepreneurial culture, MIT continues to host the Developmental Entrepreneurship Program, Development Ventures, Legatum Center, the Next Billion Network, EPROM. These related initiatives now continue to invest and play a fundamental role in setting off virtuous cycles of entrepreneurship and technological innovations in places that have otherwise been subject to poverty and stagnation.

The IDRC project has focused on 3 primary areas of entrepreneurship and development research:

1. -Human Capital Formation & Business Planning Development
2. -Access to Financial Capital Development
3. -University Research Integration & Regional Node Development

More specifically, the DE project has supported mentoring, judging, teaching, and in country assessments for over 300 innovative projects and business plans. This has exceeded the original estimate of 15 for the first year and 30 in the second year by a significant margin. Due to the IDRC funding additional funding was leverage which enabled a broader scale of work and development. MIT's extremely gifted and international student body/researchers, many of which come from developing countries, have developed and validated a wide range of business plans in selected developing countries which are aimed at solving key problems in their countries, including in the health, environmental, and energy sectors. In the last report we noted that we made significant progress in demonstrating the power of entrepreneurship in solving cross cutting sectoral problems in over 30 developing countries. Since the last report we have deepened the individual country involvements and now have much of the projects online.

In the University Research integration and Regional Node Development component, we have refocused on Africa through the EPROM regional node in Nairobi Kenya for Africa.

With respect to the Financial Capital issue, developed a comprehensive financial data base (which we believe is the first of its kind) which covers over 25 developing countries and contains comprehensive data on venture capital funds their nature and activities. We have made the transition to an online interactive site now in beta (integriglobal.dabbledb.com). In the next steps of the project we aim to use this tool to undertake deeper analysis and research into the financing issues by country and region. Additional funding will be sought to continuously update the site and make it available to entrepreneurs interested in funding for projects in developing countries.

2. The Research Problem & Its Evolution

The research problem has evolved somewhat but remains fundamentally as defined at the inception of the project. We aimed to tackle and investigate a variety of issues associated with entrepreneurship in developing countries. We have done this to date through supporting a variety of demonstration initiatives with in country assessments that tackle some of the most difficult problems in the developing world. Through the formal class work, seminars, and mentoring we stressed the difference in entrepreneurship between developed and developing economies. We propose a methodology for structuring business plans which focus on scalability, low marginal costs of product/services, development impact, and technology innovation. Since the last report we have added a new course on “Poverty and Mobile Solutions” where we focus on the use of mobile phones for poverty alleviation. We have also renamed the Development Entrepreneurship course to Development Ventures to better reflect the business plan start up focus of the course.

We have continued to work through the local nodes to undertake local research and scale our entrepreneurship and development approach through local courses, seminars, and proof of concept projects. In Africa we supported an inaugural meeting/course for 12 universities and countries to establish the African faculty network for EPROM.

3. Research Findings Summary

Finance – We have expanded our research on venture capital financing and its impact in developing countries. As we previously reported, our findings to date suggest that in the last three years, private capital for funding for early stage entrepreneurship in developing countries has risen significantly, and in some countries largely overtaking development aide (integriglobal.dabbledb.com). Despite the global downturn experienced in the last year, funds in developing and emerging markets continue to invest and have strong plans for the future, despite investments slowing considerably over the last year. Despite this, we consider the transformation and the enhanced presence of venture capital funds in developing countries to be a positive and significant long term trend.

As previously reported debt financing and the behaviour of local banks in terms of loans and other financial instruments, has not been assessed, and it appears that this is still largely a problem. Future research could look at the role of banks and loan financing in developing countries. In light of the current global economic crisis this may become the critical issue for the next few years. As previously noted, micro-finance has received a lot of attention the last few years. However micro-finance aggregate data in terms of disbursements and impact is not widely available. A detailed examination of microfinance data and institutions would also be a good area for additional research in the future, including examining the nature and scope of disbursements. A final area for future research is the impact of China investments in Africa. Over the last few years China has poured over \$10 Billion into Africa in a wide variety of sectors. The impact of these investment is difficult to gauge. Additional research in this area could look at identifying, and assessing the nature and scope of the Chinese investment which have been made in Africa.

Human Capital and Business Plans- Our participatory research with DE fellows and students continues to produce solid results – over 50 new business plans in the fall in addition to those previously reported. Our „learning by doing approach’ supported by IDRC travel grants has resulted in enhanced understanding of areas such as health, environment, and education. Several of these projects have been entered in the MIT business plan competition as well as other competitions. In part as a result of our DE efforts, the development portion of the MIT business plan competition has again had a record number of entries in 2009, making it the most popular part of the competition.

Alumni Network – As we previously reported we have refocused the work related to the alumni network towards the other areas. We have therefore limited the geographic scope of this component to Africa only. In a sense this is perhaps the neediest region for on the ground support. We hosted the first MIT alumni event for West Africa, and the held the first meeting of 15 universities related to the EPROM network in collaboration with Nokia.

4. Project Implementation and Management

Research Users & Ultimate Beneficiaries: throughout the lifecycle of the project we engaged both potential end users of the research as well as beneficiaries. For example in the case of the financial research we engaged directly with venture capital, pension funds, endowments and other financial institutions in a variety of countries who will ultimately benefit from the work undertaken. In the case of the fellows/students and business planning, the development of new solutions and products was done for the first time in conjunction with potential users or „customers’ as interviews were held in countries of interest. This continues to be a core component of the methodology and we use the independent studies 3 week period in January for in country research and assessment.

Analytical Techniques: Through the course of the research we have continued to attempt to balance a mix of formal course work, seminars, mentoring, and a learning-by-doing approach with a mix of quantitative and qualitative research. We believe that the success of the number of ventures produced is directly attributable to this strategy and methodology.

Financial Variances: We are concluding the project within the allotted budget. (See financial report for detail).

Changes in Orientation: As mentioned previously, there have been no major changes in orientation. The sole reorientation has been with respect to the alumni network which we have reoriented only to Africa.

Human Resources/ Staffing: We continue to rely heavily on graduate students for the work related to the project we have significant turnover. We have managed over 200 graduate and undergraduate students who have directly or indirectly worked on the project. The turnover is a highly time consuming activity and requires active project management.

Project Schedule: The project as initially defined is completed. However as previously noted we have already identified significant need to continue some of the existing work and expand some of the research in the financial area for example, further develop the regional nodes, and refine the business planning methodology. We continue the work supported by some of the additional funding that the IDRC grant enabled us to leverage and we continue to seek funding to continue the DE work.

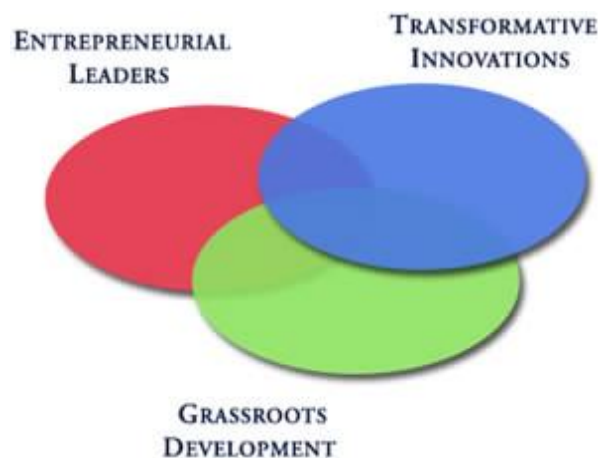
5. Capacity Building

Our project has achieved tangible results in terms of building local capacity. Many of the DE students and fellows have returned to their countries of origin, or have moved to developing countries specifically to work on projects initiated through DE. Over the last year we have identified over 30 people who have done this. We feel that the combination of academic work undertaken at MIT combined with the „on the ground’ testing of business plans is a good combination to meet the operational realities in developing markets. Additionally in terms of capacity building through the regional nodes, in the case of Africa/EPROM the training has been expanded from students to a „train the trainer approach’ where the professors receive specific training through targeted seminars the first of which was carried out in May. 10 key professors from African universities collaborating in the EPROM initiative have created an African EPROM academic network as a result of the seminars/training. We hope that this approach will enable the broader scaling of EPROM and engage many more universities in Africa.

6. Project Outputs and Dissemination-

The project has generated a variety of outputs (see appendix) which can be categorized as follows:

- a. Online Resources/Reports/Publications - We have developed three primary online sites: 1)EPROM <http://eprom.mit.edu>, 2) Emergis Global emergisglobal.org, 3)Next Billion- <http://nextbillion.mit.edu>, a variety of reports, and research documents, integrated in each of these web sites.
- b. Knowledge Creation - Through our learn-by-doing approach we have conceived and contributed to the development of a number of new technologies and have tested some of these in various countries. As previously noted most of the projects are online i.e. http://nextbillion.mit.edu/index.php?option=com_sectionex&view=category&id=5&Itemid=63
- c. This „learning-by-doing’ is initiated by several entrepreneurship and development courses offered at MIT. We continue to refine and develop these courses and seminars so as to reflect the needs of the students and realities of the developing world.
- d. Training – As indicated in addition to the formal courses we have held several training seminars, workshops, and discussion groups. This combined with the thesis supervisions of several students has provided a variety of opportunities by which to systematically deal with the development and entrepreneurship question. Our transformative impact is simplistically defined below:



7. Impact

We believe that the impact of the project has been significant. For the first time MIT students and fellows have been able to test their business plan assumptions and undertake extensive market research in the countries of their choice.

Over 50 fellows and DE participants have returned to their country of origin to be key leaders and change agents, and implement projects such as this. In addition, the support provided to the development track of the MIT business plan completion has elevated the interest level in terms of the number of participants, and has also significantly improved the quality of the proposals.

We believe that the financial analysis and research represents a first attempt at quantifying the finance and equity issues associated with development and entrepreneurship – perhaps the most important ingredient to successful entrepreneurship in developing countries. In our continuing work we hope to be able to assess the data we have gathered to better address the myths and realities associated with venture investments in developing countries.

Finally, the inclusion and participation of key universities in to develop regional nodes enhances the program impact and brings a wider array of teaching resources to scale the program. This also allows for a refinement of the process based on local needs and integrated the realities of local conditions.

8. Recommendations

Project Scope: Long terms change requires persistence and fine tuning of the methodology. We aim to continue the work we have begun over the next few years in order to scale more broadly the initiatives that are undertaken

Next Steps : We desire to continue to engage with IDRC for support of ‘learning by doing’ project support at MIT and for field work in developing countries, as part of a continuing effort at human capital formation and business planning development. We also desire to continue to engage with IDRC for university research integration and regional node development, especially on opening new relationships within Latin America.

Sincerely,

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