

Incubating enterprises and creating jobs: A proposal to establish “Enterprise Development Technical Training Centers as part of employment-creating strategies in developing countries

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1. Introduction

This paper outlines an innovative approach combining vocational training, entrepreneurship, job creation, and local economic renewal that can be used in developing countries. It describes the objectives and essential components for modifying a vocational or technical training center (hereafter TTC) to become an effective means for accomplishing local economic development—by helping its graduates and unemployed or underemployed adults in the surrounding communities to become entrepreneurs and create new enterprises and jobs.

One or more existing vocational or technical training centers in the country could be designated, or, if none exist, new ones could be established, to function as “Economic Development TTCs” or “Enterprise Development TTCs” (EDTTCs). These specialized TTCs would include several economic and enterprise development components in addition to the vocational training wing: a production wing that produces products or services for direct sale or under contracts, programs to teach entrepreneurship and business planning, business incubation facilities and business networking capabilities to strengthen small businesses, and several other specialized components needed to facilitate community economic renewal.

By adopting this proposal, a traditional vocational training center can be redesigned to become the base for systematic economic development and job creation in the community or region where the EDTTC is located.

2. Objectives of EDTTC.

The primary purpose of this EDTTC will be to utilize a carefully designed and integrated set of educational programs, entrepreneurship development components, cooperative concepts, and support services to select and train youth, women, and unemployed or underemployed adult males to become a new generation of skilled workers cum entrepreneurs and community builders. They will be capable of starting and operating modern, small-scale enterprises and worker cooperatives that will generate substantial numbers of new jobs and income-generating activities—beyond marginal self-employment—in the community and region.

This objective will be accomplished by establishing and locating in one institution or in close proximity, a carefully integrated set of vocational training, entrepreneurship development, financial support, business incubation, networking, and community development mechanisms. As a result of the synergy among the components, the EDTTC will become a dynamic, powerful engine for local economic development and job creation.

The programs carried out in the EDTTC will attract, screen, motivate, prepare, and assist youth, women and unemployed or underemployed adult males living in the nearby communities or region to become successful individual and group entrepreneurs. This will help them rise above their current economic situation and become part of an expanding business community.

When viewed in economic development terms, the EDTTC outlined in this proposal is an “asset-building process,” and the several components incorporated within the EDTTC comprise an integrative strategy that can produce significant economic changes in poor communities in a relatively short period of time by providing a framework for an “asset-building community.”¹

An asset-building community is one where many people in the community are involved in developing and using a wide array of highly targeted assets for themselves, their businesses and organizations, and the community as a whole. *Asset-building processes* are the creative community processes that will be required to transform opportunities into benefits for all community residents.²

3. Specific Objectives of EDTTCs.

The specific objectives of this EDTTC are to:

- ! **Graduate well-trained skilled workers** who have both technical skills and a good understanding of (1) market and cooperative economics, (2) business functions and operations, (3) entrepreneurship and business planning skills, and (4) individual and cooperative ownership concepts essential to successful business creation and expansion as part of a systematic local economic development strategy.
- ! **Make available at one location all of the essential facilities, training, and support services needed to create and incubate modern small business enterprises** for individuals and groups of TTC graduates who want to establish businesses capable of expanding beyond self-employment and marginal income-generating activities.
- ! **Systematically create substantial numbers of new modern small business enterprises and worker cooperatives** that are owned and operated by the graduates of the center and

¹ June Holley, “Asset Building for Healthy Communities: A Concept paper,” ACEnet, May 15, 1997.

² Ibid., p. 3

people living in the nearby communities.

- ! **Generate economic growth and employment opportunities for youth, women and other poor people in the community** or area in which the center is located.

4. Operational Components of EDTTC.

To accomplish these important objectives, the EDTTC should include most or all of the following operational units or components:

- **Technical education and skill training wing.** This wing, which includes the basic components normally included in a vocational or technical training center, will provide students with high-quality general education and training in technical and vocational skills needed to facilitate economic growth in the community and region.
- **Entrepreneurship Training Program.** In addition to the normal complement of general education and vocational skill training courses, the EDTTC will incorporate into its curriculum specialized entrepreneurship training courses. These will include market economy principles, business planning skills, basic entrepreneurship skills, management skills, and cooperative and group entrepreneurship principles. A specially tailored set of entrepreneurship education training materials would be developed for use in the EDTTCs, and teachers trained to use them in the classroom.³ The EDTTC Entrepreneurship Training Program will include such topics as:
 - What is entrepreneurship?
 - Why entrepreneurship?
 - Who are entrepreneurs?
 - What is the difference between individual and group entrepreneurship?
 - How do I become an entrepreneur?
 - How can several of us become group entrepreneurs?
 - How do I (we) develop a good business idea?
 - How do I (we) organize an enterprise?
 - How do I (we) operate the enterprise?
 - What are the next steps to become an entrepreneur?

The specific objectives of the Entrepreneurship Training Program are to create awareness of individual and group enterprise and self-employment, provide knowledge about starting and operating a small business or worker cooperative, and prepare participants to

³ The Entrepreneurship Training Program will include materials such as the “Know About Business” package developed by the ILO International Training Centre in Turin, Italy in 1996. Unfortunately, this package does not include any material about group entrepreneurship and worker cooperatives. Consequently, some additional training materials developed by the author and others will be used to supplement the ILO package and make it more comprehensive and useful as an introductory entrepreneurship education package for an EDTTC.

work productively in small and medium enterprises and worker cooperatives. At a broader level, the overall objective of the Entrepreneurship Training Program is to contribute toward the creation of an enterprise culture in the EDTTCs and in the country.

- **Production wing.** A production facility will be included as an integral part of the operation of the EDTCC. The purpose of the production wing is threefold. *First*, it will be an integral part of the learning environment for the Center students. By spending part of their time in this facility, working directly on production activities under the guidance of well-qualified instructor-supervisors, the students will learn the basic behaviors and self discipline needed to be successful skilled workers in industry. They will also see how the technical skills they are learning are used in the workplace and why it is important to have both theory and practice to become highly skilled, productive workers. By participating in actual production processes and being exposed to a variety of business functions as well as market discipline and business competition (learned by engaging in the processes of seeking contract work for the production facility, organizing to produce real products at competitive rates, and producing quality products which meet customer specifications and delivery schedules) the students will gain a greater understanding of how businesses operate in the real world.

The *second purpose* of the production wing is to generate revenue to help defray the expenses of operating the EDTTC and to provide some income for the students during their training. Most of the students who will attend the school will be poor, and could not afford to attend without some form of assistance. By working in the production wing they can contribute to the costs of their education and training while obtaining essential skills and knowledge. Experience in Tanzania and elsewhere suggests that upwards of 50 percent of the costs of operating vocational schools can be generated by the production wing, and the most successful ones were self-sustaining, economically. The important point to remember is that the education and economic objectives for the EDTTC need to be carefully spelled out prior to starting the production wing, and to remember that the quality of training should “override the urge for quick economic returns.”⁴

The *third purpose* of the production wing is to provide substantial and continuing linkages between the EDTTC and the business community. The process of producing commercial products will enable the Center to build credibility and establish close relationships and linkages with the businesses in the community, thus building a good reputation for the quality of its training and preparation of its students, which will lead to increasing job opportunities for its graduates.

The production wing could be operated in several ways: as an incorporated for-profit enterprise, as a worker cooperative, or by using some other legal arrangement.

⁴ A. Athumani, “Productive work in Tanzanian vocational schools,” *Educaton with Production*, Vol. 7, April 1990, pp. 5-13

The legal structure used for the production wing of the MAWAPs residential vocational training school in Dhaka, Bangladesh provides some useful insights on how this wing might be organized. Another successful model for linking this type of production facility to a school is provided by Alecoop, the production wing operated as part of a technical training school in Mondragon, Spain. (Alecoop is organized as a cooperative and is jointly-owned and run by the school's faculty, students, and other cooperatives belonging to the Mondragon Industrial Cooperative Complex. It produces wire harnesses and other electronic training devices under contract to some of the worker-owned industrial cooperatives.)

A third model for combining vocational training and production wings is provided by the experience of Patrick van Rensburg in establishing and operating the Swaneng Hill School and Serowe Building Brigades in Botswana from 1963 until the early 1980s. The Building Brigades provided out of school youth training in building skills, provided they worked in construction during their training. The students worked 4 days a week on construction teams and attended school two days studying the theory of building and other basic courses. The construction brigades were able to contract for sufficient work to pay for most of the school's costs. Later, a farmers' brigade, a textile brigade, a mechanical trades brigade and a carpenters' brigade were added. The school also initiated a rural development (Boiteko project) which included a complex of smaller scale production activities in each of several centers providing supply and demand for each other's goods and services, with some exports going outside the communities. By the early 1970s, over 100 people in rural areas were engaged in tanning and leatherwork, pottery, brewing, lime-burning, building and carpentry, brickmaking, transport, food processing, metalworking and welding, etc..

Finally, there is the inspiring historical example provided by George Hogg and Rewi Alley, who established the "Gung ho Technical Bailie Schools," in war torn China, beginning in 1941.⁵ The most famous of the Bailie Schools was known as the "Sandan School, which operated until 1954. The Sandan Technical Bailie School successfully combined vocational training, a production wing, and systematic group entrepreneurship and business incubation—all designed to start worker cooperatives to produce needed goods and services. Their primary focus was on training students for starting and operating small village industries. The 400 students at the Sandan Bailie School started and operated a wide variety of enterprises, including a hospital, dye making, construction, production agriculture, flour milling, sugar refining, coal mining, glass making, pottery making, textiles, tailoring, knitting, blanket weaving, rug making, tanning and leather working, paper making, soap making, foundry and machining, automotive repair, printing, etc.

⁵ For a description of the Bailie Schools, see Rewi Alley, *Sandan: An Adventure in Creative Education*, 1959.

- **New enterprise development (NED) team.** This team, which is the core of the EDTTC= s innovative enterprise incubation and business development program, will consist of a small cadre of highly skilled and seasoned business professionals who have expertise in organization and management, engineering and production, and business-- that is, finance, marketing, accounting, and human resource management. The primary role of the NED team is to perform entrepreneurship development work: identify business opportunities, conduct venture development screening and business feasibility studies, and serve as midwives to prospective individual and group entrepreneurs in giving birth to new modern small businesses and worker cooperatives.

NED team members must be professionally trained and experienced businesspersons. All members should be capable of conducting venture development screening and business feasibility studies. In addition to their individual areas of expertise, one team member should have knowledge of financial and other aspects of new venture creation, and one member should have knowledge of local economic development concepts, theories, and practices, including the operation of business incubators, sheltered workspace, common facilities, and small business networking.

Technical assistance should be provided for selected NED team members to take study tours to countries undertaking similar NED programs.

The NED team will also employ a selected number of the brightest EDTTC graduates as interns on a rotating basis, and perhaps include some interns from polytechnics and universities, and one or two talented individuals drawn from the local community who have the interest and potential to become entrepreneurs. It is intended that some of these interns and community members will eventually become the managers and leaders of new businesses created by the NED teams, as well as backfill the professional NED staff.

The objectives of the NED team are:

- To increase the number of graduates and others in the community with individual and group entrepreneurial characteristics, desires and skills, and new business ideas
- To identify and evaluate market gaps, available resources, raw materials and business opportunities in the community or region
- To match individuals and groups of EDTTC graduates possessing entrepreneurial abilities and desirous of becoming business persons with viable business opportunities, and to facilitate those business startups
- To systematically create economically viable, modern-type small enterprises and worker cooperatives capable of generating substantial number of new jobs in the manufacturing and service sectors

- **Small enterprise credit and finance unit.** This financial unit, which may be set up as a

credit or savings cooperative, loan fund, or venture capital fund, will provide financial expertise and resources to new business startups of EDTCC graduates. Working closely with the NED team, its staff will serve as financial advisors, venture capitalists, or bankers to the enterprise development program. The professional staff of this unit will evaluate the financial aspects of any proposed business startup or expansion, and assist in securing or providing the necessary financing to create viable new businesses launched by Center graduates. This unit will monitor the financial health of the new enterprises over time to ensure continued viability and financial soundness of operations. Examples of successful financial support mechanisms include a cooperative bank, the Caja Laboral Popular, which provides the financial support for new enterprise creation and incubation in the Mondragon cooperative complex in Spain. A Product Development Fund that is being developed by ACEnet in Southeastern Ohio is another financial mechanism which fits in with the objectives of the EDTTC concept.⁶

- **Sheltered workspace or business incubator.** Workspaces will be set up on or near the EDTTC premises to ensure that graduate (individual and group) entrepreneurs, with the necessary guidance from the NED team and Center instructors, might get practical demonstrations and experience, thus increasing their learning and business skills. They will be allowed to conduct their business operations until such time as they may be prepared to leave the incubator and establish themselves in the community.

- **Common (or cooperative) facilities wing.** In addition to (or in conjunction with) the provision of sheltered workspace for graduate entrepreneurs and a production wing to produce commercially salable products, the EDTTC will have a third component designed to strengthen and support the growth of modern small enterprises and worker cooperatives in the community, a **Common facilities@ wing**. This wing encompasses another innovative approach to increase the competitiveness of the small enterprises started by Center graduates and those operated by others in the nearby community or region. This is accomplished by providing a production facility and networking capabilities specifically designed to increase labor productivity and product quality of group entrepreneurs and artisans in a particular industrial sector, such as small manufacturing businesses. (It should be noted that the common facilities concept was first developed in Bangladesh with the assistance of the ILO, and further developed and tested by the ILO in Sri Lanka before being used in other countries. ⁷) A recent variation of the common facilities wing which has been developed in several areas in the United States is the “kitchen incubator,” which is a production facility for food processing that provides processing space on a rental basis to small entrepreneurs in the specialty food processing business.

⁶ June Holley and Amy Borgstrom, “Using a product development fund to increase community and enterprise assets: The ACEnet Product Development Fund Project: A Concept proposal,” July 30, 1997.

⁷ Richard Szal, *ILO work in the area of micro and small-scale enterprise development*, Geneva: ILO, February 1992.

The Common (or Cooperative) Facilities Wing will work as follows: A section of the EDTTC will be designated as a common facilities wing. This wing will have a basic complement of production equipment and tools needed by the Center's graduate entrepreneurs and others in the community operating in a selected industry or industries. It will be operated in one of three ways: (1) by the Center directly, in much the same as the production wing; (2) leased to a lead entrepreneur or business person, who, in addition to operating the facility and using its equipment for his/her own production, subleases or rents them on a part-time basis to other Center graduate entrepreneurs, local small scale entrepreneurs, and self-employed artisans in the same industrial sector; or (3) by establishing a Common facilities cooperative among a group of small businesses that would operate and manage the wing on their behalf. In this case, the cooperative facilities wing is operated as a second-degree cooperative organized to enhance the operation and economic viability of the small manufacturing enterprises and make available needed assistance through training and advisory services, including backward and forward linkages, i.e., linking these businesses with sources of inputs and information and with potential buyers and markets.

- **Community Enterprise Development Companies.** Another innovative component that could be developed as part of or in conjunction with the EDTTC is a community integrated manufacturing company (CIMCOM). This component combines elements of the common facilities wing and new enterprise development team in a unique combination. A community integrated manufacturing company is a non-profit, non-governmental organization (NGO) which is organized by a small group of business persons, venture capitalists, EDTTC NED staff and community leaders for the specific purpose of establishing and supporting small manufacturing enterprises in rural areas experiencing economic stagnation or declining agricultural activity and rising levels of unemployment. It is a jointly financed partnership between the local government units, the EDTTC and the private sector. The CIMCOM works with local government leaders to establish, on a turnkey basis, several new, small-scale production-oriented businesses in the target community. The objective of these new enterprises is to create good jobs and income for EDTTC graduates and the residents in the community. The Fillmore Industrial Cooperative in Fillmore, Utah, and ACEnet in Athens, Ohio, are examples of the CIMCOM enterprise- and job-creating approach.

ACEnet is also considering creating a slightly different version of the CIMCOM model. Their proposed model is called an "enterprise community development corporation" or ECDC. (In the U. S., CDCs are typically community non-profit organizations involved in business development, such as microenterprise practitioners, community or regional loan funds, and implementing other business development strategies.) Under the ACEnet model, CDCs are transformed into more active job and enterprise-creating organizations by "learning that generating income while developing additional resources for firms

increases their ability to service the community long-term”. 8

- **Networking Component.** In addition to the common facilities or CIMCOM functions, it is anticipated that the economic development component of the EDTTC (probably centered in the Common Facilities or Sheltered Workspace wings) will provide a framework to foster extensive networking among participating employers and other small enterprises in the community. In order to facilitate this networking activity, the EDTTC will employ a staff member who will function as a network broker, promoting and organizing the full range of networking activities suitable for and sought by the small enterprises in the common facilities wing and surrounding community. The networking activities will be developed and organized along the lines of the highly successful flexible manufacturing and small enterprise networks operating in Northern Italy, Denmark, Spain, the USA, and elsewhere. 9
- **Community Economic Renewal Component.** EDTTC staff will work with local community leaders (business, government and labor leaders) to help them better understand local economic development principles and the processes that other communities have used to revitalize their economies. EDTTC staff invite business and community leaders to participate in a structured economic renewal program to help them strengthen their local economies and create more jobs. Community workshops are conducted to help residents assess their economic renewal needs, write a strategic plan, develop specific projects, and consider starting an economic development organization to coordinate their efforts. 10

5. Organizational and financial arrangements for EDTCC.

Because of the unique nature and range of educational and entrepreneurial activities that will be carried out in this vocational training center (e.g., the need to have an entrepreneurial environment, commercial operations, a production wing with market discipline) and the restrictions or regulations on the use of government-owned property for educational purposes, it may be necessary to establish special legal, financial, and oversight arrangements for its successful operation. Four possible ownership and control arrangements will be considered:

- ***Operate the economic-development components as an integral unit of the EDTTC.*** If legal, financial, and other regulations permit, the EDTTC could operate much like other

8 June Holley, “Asset Building for Healthy Communities,” p. 6.

9 For a fuller description of the Small Business networking concepts envisioned for the EDTTC see: Chapter 11 in Gary B. Hansen, *Entrepreneurial Initiatives for Local Economic Development. Part II: Economic Development Opportunities Handbook*, (Geneva: ILO, March 1996) pp. 124-156.

10 For a description of the concepts and workshops that will be used as part of the community economic renewal program see Gary B. Hansen, *Entrepreneurial Initiatives for Local Economic Development. Part I: Planning, Organising and Implementing economic development programmes*, (Geneva, ILO, March 1996).

public TTCs.

- ***Lease the wing containing the production unit and other enterprise and employment creating components of the EDTTC to an existing or newly created NGO***, which would organize and operate it as an Economic and Enterprise Development component of the EDTTC in accordance with the objectives outlined in this proposal.
- ***Create a new NGO and contract with it to organize and operate the wing containing the production unit and other enterprise development components as an economic development entity*** or ***Enterprise and Economic Development Center***, @ on the same premises or adjacent to an existing TTC. This NGO-operated Enterprise and Economic Development Center would be designed to include all of the essential incubation, production, networking, and support units that should be part of this unique EDTTC. It would operate independent of but in close cooperation with a designated government-operated TTC.
- ***Create a nonprofit foundation or NGO specifically to establish and manage both the economic development and skill training components of this unique type of Enterprise and Economic Development TTC*** A loan or grant would be made directly to this new foundation or NGO to build and operate one or more demonstration Enterprise and Economic Development TTCs. The new facility would be owned and operated by the NGO or foundation as an Enterprise and Economic Development TTC, and could receive grants from the government to provide vocational and entrepreneurship training to the nation's youth, women, and unemployed and underemployed adults.

The second and third approaches would probably be more economical and allow for a faster startup of operations. They could serve as an acceptable, although not ideal, way to start the demonstration process. The first and fourth options would be most appropriate if the Government and the funding agency decide that enterprise and employment creation for youth, women and unemployed or underemployed adults are major goals of this project, and they want to move ahead aggressively to implement a dynamic and comprehensive approach to group entrepreneurship and local economic development to help accomplish these objectives. Each of these alternatives should be evaluated to determine which one is most suitable for the development of Production wings and other enterprise development components in the TTCs.

6. Conclusions.

The components outlined in this EDTTC proposal provide a unique institutional framework and comprehensive approach for effectively linking together technical skill training with entrepreneurship training, business incubation, individual and group entrepreneurship, local economic development, and small business networking to systematically create successful new businesses, jobs, and incomes for EDTTC graduates and others living in the surrounding communities. The experience gained by starting and operating one or more pilot EDTTCs will provide the knowledge and information needed to launch, on a larger scale, an innovative

approach to skill training and enterprise development in the country. Most importantly, it will provide a practical basis for generating an entrepreneurship culture and systematically creating new business enterprises and desperately needed jobs and income for youth, women and unemployed or underemployed adult males.