Technology-based training for margnilalized girls

2005

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Foreword

While recognising that girls and young women in poor societies are a particularly vulnerable group, this project demonstrates ways in which they can be better equipped with training to seize income earning opportunities, thereby improving their living conditions.

The project has been designed and developed in the belief that promoting gender-equitable technical and vocational education can be a means of combating 'income poverty' and 'human poverty'.

Existing skills training for girls and young women tends to reinforce female biases associated with their secondary position in families and society rather than challenging and transforming gender roles and relations for women's advancement and empowerment.

Such practices have been perpetuated by many development projects for women that only focused on their roles as mothers, caring for children and families. It is important, therefore, to recognise the triple role women play since they are active in three types of labour: reproductive, productive and communal.

The challenge has been to change gender-biased perceptions with regard to technical training and promote broader, more diversified training courses for women, including courses traditionally considered as exclusively male domains.

We hope that with the pilot experiences documented in this report we are able to present persuasive evidence that even the most marginalized groups in society can be helped to help themselves and improve their income and living conditions through targeted training initiatives. These initiatives would take into account the complexity of the problems that people living in poverty are faced with and come up with viable solutions.

Executive Summary

A better understanding of what causes the economic and social marginalization of certain population groups, as well as changes in thinking about poverty and poverty reduction, have had a greater influence on development policy making in recent decades. Lack of access to meaningful education and training and decent work opportunities, as well as channels for exploring skills and talents, often combine to push people towards the margins of society and increase the likelihood that they will fall into the poverty trap. This is particularly true for girls and young women.

Since 2002, UNESCO has responded to these new perceptions by implementing a project focusing on "Technology-based Training for Marginalized Girls" in Cambodia, Nepal and Indonesia as part of the Organisation's contribution to national poverty reduction strategies. Within the project framework, vocational skills pilot projects have allowed trainees to gain a basic understanding of different occupations that are not only valued within the participating communities but address important economic, environmental, health and food security issues.

From an institutional perspective, the "Technology-based Training for Marginalized Girls" project reflects a willingness on the part of national Ministries of Education to innovate and take risks in educational planning, and a desire to develop and align vocational skills training approaches and content more closely with the needs and expectations of marginalized girls as a specific group requiring development assistance.

Of particular interest in this project is the integration and understanding of gender and empowerment perspectives. The planning process took into consideration the multiple needs and struggles of young girls in the poorest communities, building a project framework in partnership with non-formal local training providers around such considerations. By emphasising the contribution of young, marginalized girls as potential drivers of change in their communities, the girls themselves have gained confidence and developed positive attitudes about themselves, as well as coming to be viewed in a different light by their families and peers.

We are now beginning to understand the potential of such projects to break circuits of educational failure, poverty and exclusion. And while it is too early to assess the project's long-term impact, the evidence so far suggests that the pilot projects have been instrumental in transforming lives and fostering community cohesion around project goals.

Aims of the report

Many national vocational education and training delivery systems in Asia are now beginning to reorient towards pro-poor technical education and skills training –in some cases, specifically directing resources to support a wider range of women's activities around their income-earning possibilities, as well as health and family welfare. But in spite of the growing emphasis on poverty reduction –and more specifically the gender dimensions of tackling poverty– there is a notable lack of methodologically sound information upon which to base policy making.

This report aims to provide a starting point for bridging this gap by synthesising the findings of the country pilot projects in the "Technology-based Vocational Training for Marginalized Girls" project, highlighting interesting lessons learned and suggesting different areas for policy development. And while there is still much to be learned about how to adapt programme approaches to serve the needs of the community as well as possible, it is hoped that the report will generate discussion on questions such as: How can we harness the occupational and entrepreneurial talents of girls and women in marginalized communities as assets for development? How should these talents be channelled? What policies and institutional structures are needed to reach marginalized girls and women with relevant technical and vocational training? What are the contents and instructional approaches that support the skills development process? What kind of teachers are needed? How do we measure the performance of such competency-based programmes systematically? How can different stakeholders work together to make such programmes effective?

The report is intended for all those working in the related fields of gender and development, technical and vocational education for girls, community learning and poverty reduction. We hope it will provide guidance to those countries wishing to create similar project frameworks in the future.

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Acronyms

ADB	Asian Development Bank
APGEST	Asia Pacific Gender Equity in Science and Technology
ASEAN	Association of Southeast Asian Nations
BPS	Bureau of Statistics in Indonesia
CEDAW	Convention on the Elimination of Discrimination against Women
CESCR	United Nations Comittee on Social, Economic and Cultural Rights
CLC	Community Learning Centre
CRC	Convention of the Rights of the Child
CSDS	Centre for Societal and Development Studies of Atma Jaya Catholic University Indonesia
CTEVT	Council for Technical Education and Vocational Training (Nepal)
DANIDA	Danish International Development Agency
DFA	Dakar Framework for Action
DTEVT	Department of Technical Education and Vocational Training (Cambodia)
EFA	Education for All
FAWE	Forum for African Women Educationalists
FEMSA	Female Education in Mathematics and Science in Africa
GDP	Gross Domestic Products
GEFONT	General Federation of Nepalese Trade Unions
GEO	Gender and Equal Opportunities Unit (Cambodia)
GER	Gross Enrolment Ratio
GO	Governmental Organisation
HDI	Human Development Index
HDR	Human Development Report
HQ	Headquarter
HRD	Human Resource Development
ICT	Information and Communication Technologies
IDT	Left-behind Villages Programme (Indonesia)
ILO	International Labour Organisation
JPS	Social Safety Net (Indonesia)
MoEYS	Ministry of Education, Youth and Sport (Cambodia)
MOM	Ministry of Manpower (Indonesia)
MWA	Ministry of Women's Affairs (Cambodia)

NatCom	Nepal National Commission for UNESCO
NER	Net Enrolment Ratio
NGO	Non-Governmental Organisation
NTF	National Training Fund
NTTI	National Technical Training Institute
PNFE	Provincial Office of Non-Formal Education (Cambodia)
PPK	Sub-district Development Programme (Indonesia)
PRSP	Poverty Reduction Strategic Paper
P2KP	Urban Poverty Reduction Programme (Indonesia)
P3DT	Village Infrastructure Project (Indonesia)
Rp.	Rupiah, *Indonesian currency*
RTC	Regional Training Centre
SAARC	South Asian Association for Regional Cooperation
SKILL	Skill & Know-how Imparted at Local Level (Nepal)
SLC	School Leaving Certificate
SLTP	Three-year secondary school (Indonesia)
SMKN	Senior Secondary Technical School (Indonesia)
TFE	Training for Employment
TNA	Training Needs Assessment
TVE-G	Technical and Vocational Education for Girls
TVET	Technical and Vocational Education and Training
UN	United Nations
UNDP	United Nations Development Fund
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNEVOC	International Centre on Technical and Vocational Education and Training
UNICEF	United Nations Children Fund
UNIFEM	United Nations Development Fund for Women
UNSFIR	United Nations Support Facility for Indonesian Recovery
VDC	Village Development Committee
WDO	Women Development Office
WID	Women in Development (Cambodia)

Part I.

Introduction

I.1 Poverty with a woman's face

The gender dimensions of unequal access to opportunities are now recognised and better understood, especially in terms of how gender bias contributes to raising levels of inequality and hindering development in different communities.

At a local level, for instance, community or family beliefs concerning the role of women in society heavily influence the participation of girls and women in schooling and employment opportunities, as well as the assignment of household and (re)productive roles. The role of girls may be confined to homemaking and childcare and their prospects for receiving education can be slim. In this context, ways of transmitting knowledge and skills and using local technologies are important because they promote a way of life that can be communicated from generation to generation.

When limited financial resources are available, fathers prefer their sons to continue their schooling because they are expected to be the family breadwinners. In the Asia-Pacific region, where the pilot projects for the "Technology-based Training for Marginalized Girls" project are located, girls are also withdrawn from school prematurely for a variety of reasons: early marriage, distance from school, inadequate accommodation facilities, inappropriate school curriculum and class hours or the inability to pay school fees.

At the same time, even though women may constitute the majority of microentrepreneurs in the informal economy of their countries and a significant percentage in the formal sector, their contribution to family income and community welfare usually goes unrecognised. They learn from an early age that only boys can be leaders in the community. In paid employment, the participation of women tends to be confined to 'feminine' types of work in lower paid, less visible jobs. Women are also seriously under-represented at the level of political and economic decision-making, sometimes constituting only 10% of all elected leaders at provincial and village levels.

The result is marginalization from the mainstream of society, vulnerability and poverty. This is a particularly stubborn problem in the remoter rural and mountainous areas where as much as 70% of the population in some Asian countries live and where agriculture is often the principal income-generating activity. Since agriculture is a largely seasonal activity, many young women are without an income for extended periods of the year and many have little option but to migrate to the cities in search of jobs.

In recent years, poverty reduction has moved centre-stage to become the primary overriding development objective –not just a derived outcome. The Millennium Declaration was an unprecedented expression of solidarity and determination to rid the world of poverty, committing countries (rich and poor) to the eradication of poverty, the promotion of human dignity and equality and the achievement of peace and environmental sustainability.

In the Asia-Pacific region, poverty undoubtedly has a woman's face. Two-thirds of the world's poor live in this region. The majority of them are women and almost two-thirds are of school age (Asian Development Bank, 2001).

A World Bank research report entitled "Engendering Development – Through Gender Equality in Rights, Resources, and Voices", (2001) emphasises that societies which discriminate by gender pay a high price because their ability to reduce poverty is impaired. The report states that eradicating poverty depends on improving the situation of women and increasing the efficiency of their work. Furthermore, "countries with smaller gaps between women and men in areas such as education, employment, and property rights not only have lower child malnutrition and mortality, they also have more transparent business and government and faster economic growth, which in turn helps to further narrow the gender gap".

I.2 A human rights based approach to poverty reduction

Within the human rights based approach to poverty reduction, the concept of poverty extends well beyond the simple lack of economic resources to include social, cultural, healthcare, environmental and other aspects of life. Poverty is defined as a "human condition characterised by sustained

or chronic deprivation of the resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, economic, political and social rights" (CESCR, 2001).

The human rights based approach looks at poverty alleviation as a right rather than a need, and legal frameworks –rather than compassion and charity– are regarded as the main tools for combating poverty. Since subjecting people to live in poverty deprives them of their human rights, the human rights framework is the most effective mechanism for addressing this situation and responsibility is assigned primarily to governments.

I.3 Policy responses

In concrete terms, it is widely recognised that poverty reduction measures must translate into incomes for the poor, reinforced by access to education and skills training opportunities which increase their employability and prospects for generating sustainable livelihoods.

Education and skills training are especially needed for the most vulnerable groups to reduce their risk of falling deeper into the poverty trap and to increase their chances of climbing out of it.

Many governments have introduced measures to improve the relevance, flexibility, accessibility and reach of national education systems to ensure that marginalization of disadvantaged groups is minimised in the long term, reducing the need for special measures later on. Legal reforms have made primary education compulsory, while special bodies to monitor compliance with policy directives have been launched.

In order to reduce the gender imbalance in access to educational opportunities, in April 2000 the Dakar Forum on Education for All launched the UN Decade of Education for Girls which aims at ensuring that girls have full and equal access to good basic quality education by 2015 (Dakar World Education Forum, 2000).

I.3.1 The place for Technical and Vocational Education and Training (TVET)

National technical and vocational systems in Asia are being reformed in response to changing economic contexts and the demands of employers. Upward skills trends in the workplace and technological innovation generate demand for higher technical and specialist skills. At the

same time, the rigid emphasis on preparation for waged employment in technical and vocational education is diminishing as governments acknowledge the importance of the informal sector for potential employment prospects.

Several countries have responded by increasing the general studies content of vocational courses, or by integrating vocational subjects into general upper-secondary education. There is now a broader range of technical and vocational training partners and providers and students are given opportunities to apply their technical knowledge in a commercial environment or participate in creating and developing a real company that markets its own products. Vocational training also increasingly includes workplace-based learning.

One persistent oversight in the reform process is that countries still need to design and devise innovative policies to allow young people to stay in their communities in the remoter or more disadvantaged areas. Part of the solution is skills training programmes that are capable of engaging and challenging those whose access to formal learning environments has been limited in the past. The training should enable young people to capitalise on their innate local knowledge and the assets of their communities to generate decent work and sustainable livelihoods at a local level.

I.3.2 The participation of girls in technical and vocational training

Over the past 15 years, several countries in the Asia-Pacific region have adopted affirmative policies to encourage girls to enrol in vocational courses, including scholarships and the promotion of school environments that are supportive to female learning. Nevertheless, many girls and young women, especially in rural areas, are held back by their level of basic education or are unable to access TVET institutions, while others drop out of school before mastering their skills.

In general, girls tend to be oriented towards fields traditionally seen as suitable for women, such as tailoring, dressmaking, weaving, cooking, etc. In urban areas, this orientation may veer towards low-skilled, low-status manufacturing –notably in the garment industry and food processing– or export sectors that have even brought considerable economic growth to their countries.

Entry to more male-oriented technical courses can be difficult if girls do not have the necessary basic educational qualifications. And in

spite of growing participation in areas tradition-ally considered as male –computer courses, for example– there is still a general reluctance by technical and vocational education institutions to expand such course options for women.

Even when young women do succeed in enter-ing courses, they continue to face obstacles. Female learners can be demotivated by text-books and the learning environment because of the gender bias portrayed in learning materials and the attitudes of teachers. Moreover, once the training is completed, female vocational school graduates usually experience difficulties in finding employment and, when they do have jobs, they enjoy lower status and salaries than their male counterparts.

> Forms of discrimination acting as barriers to gender equity in technical and vocation-al education have been classified under the following three categories (UNESCO-UNEVOC 1996):
>
> **Cultural Aspect**: Common patterns of role and status of women emerge across coun-tries, despite widely varying circumstanc-es. They reflect the cross-cultural norms and traditions by which the subordinate status of women is maintained.
>
> **Attitudinal Aspect**: Perceived differences in male and female roles and capabilities, learned through socialisation in the home and family, reinforced through schooling, peer pressure and absence of female role models.
>
> **Qualification Aspect**: Lack of mathemat-ics/science pre-requisite for entry to pro-grammes is often perceived as a barrier, particularly by those involved in admis-sions to programmes. The belief persists that females are by nature technologically weak and have difficulty absorbing scien-tific and technological information or to ac-quire technical skills.

As a result of all these factors, women in many Asian countries tend to have low aspirations for themselves and lack self-confidence. Their problems are linked to the wider economic, so-cial and cultural phenomena of workforce dis-crimination, poverty, unemployment and the lower status of women in society.

I.3.3 The potential role of technology-based skills training for girls in poverty reduction

In the most impoverished communities, there has long been a heavy reliance on self-help mechanisms and micro-enterprise develop-ment (especially among women) in the informal economy for household and community sur-vival and local income generation. Reforming the vocational education sector to make it more responsive to this reality is therefore of compel-ling importance.

The introduction of competency-based training for marginalized girls –involving the recogni-tion of knowledge and skills acquired through local technological systems and practical ex-perience– is likely to improve access to further training and increase income earning opportu-nities for those who have previously had little connection with formal learning environments. Such types of education provision can be par-ticularly powerful instruments for girls, helping them play a more proactive role in improving personal, family and community prosperity and welfare.

The entry points are through the diverse range of actors that play a role as intermediaries and implementation partners with communities. The programmes themselves can act as the nexus for broader cooperation and synergies across different policy streams and can lead to indirect spill-overs such as strengthening consultative processes and institutionalising interface mech-anisms for grassroots, civil society and private participation in decision making and resource al-location; equitable and fair access to basic ser-vices; and the enjoyment of different rights.

Of course, wherever technological solutions and applications are being drawn on –whether from within communities or neighbouring countries– in order to be successful and sustainable, the tech-nology needs to be appropriate to the context.

> Since the mid-1970s, a growing interest in the concept of **"appropriate technology"** as a means of addressing the challenges of poverty and adversity has helped to define questions of locality amid the borderless and increasingly complex global market-place, and it is an intricate part of the equa-tion for sustainable development.
>
> **Some definitions:**
>
> "Appropriate technology is usually charac-terised as being small scale, energy effi-cient, environmentally sound, labour inten-sive, and controlled by the local community.

It must be simple enough to be maintained by the people using it. Furthermore, it must match the user and the need in complexity and scale and must be designed to foster self-reliance, cooperation and responsibility." (Engineers without Borders)

"Appropriate Technology: Technology that can be made at an affordable price by ordinary people using local materials to do useful work in ways that do the least possible harm to both human society and the environment." (McGraw Hill Online Learning Center, 1999)

In the long run, these types of education provision also raise new possibilities for poverty reduction and research questions that are relevant both for advocacy and project work, as well as for policy intervention by national and international bodies.

Part II.

Project overview

This section provides an overview of the 'Technology-based Vocational Training for Marginalized Girls' project, providing information on the target group, project activities and methodology employed, as well as the institutional arrangements.

II.1 Introduction to the project and its objectives

Through its Section for Technical and Vocational Training and the Section for Science and Technology Education, UNESCO has been implementing a "Technology-based Vocational Training for Marginalized Girls"[1] project as part of the Organisation's efforts to contribute to poverty reduction.

In this project, technical and vocational education is understood as occupation-oriented technological knowledge and skills training for vulnerable, out-of-school teenage girls living in impoverished communities. The training model sets out to integrate the natural learning processes and assets of teenage girls living in difficult circumstances, assisting them to become self-reliant by sharpening their livelihood skills or developing new ones and reinforcing basic life skills.

The immediate objectives of the project are as follows:

- To increase access of poor girls and young women to appropriate learning and life skills training programmes in order to ensure access to occupations from which women have been excluded or in which they have not received appropriate recognition.
- To help education managers, planners, officers and teachers to link non-formal and formal education effectively and adopt innovative measures, curriculum and educational materials to incorporate poor girls into technical fields.
- To provide policy makers with a set of Good Practices and Guidelines to better promote the participation of under-privileged girls in scientific, technical and vocational education based upon the experiences of series of pilot activities.

The training opens up the potential for improvements in how the girls contribute to the basic needs of their families and communities. Of particular interest is the integration of gender and empowerment perspectives. The trainees develop positive attitudes about themselves and their role in the community and, in the long run, explore the possibility of starting their own small enterprise as a viable route out of poverty. This helps raise their status in society.

II.2 Target group

The primary target group comprised young girls and women with little or no formal schooling living in marginalized and/or impoverished communities in three project countries – Cambodia, Indonesia and Nepal.

The second target group comprised the parents and families of the trainees, vocational school teachers, vocational school administrators, Community Learning Centre managers, education planners and policy-makers, who were involved in the different processes of planning and implementing project activities and received training in project planning from a gender perspective.

II.3 Project activities

II.3.1 Community analysis and training needs assessment

In order to tune training activities to the specific geographical, social and cultural context and needs of the target communities, as well as the local demand for products and services, the pilot projects were created on the basis of a community analysis – specifically looking at the target group and their skills training needs.

The analysis included an overview of existing access to education and training opportunities, time constraints on the girls with regard to harvest, child care duties etc., as well as material constraints, such as living conditions, the need to cover nutrition and transport costs. The analysis also bore in mind traditional livelihoods in the target communities and neighbouring areas and employment potential.

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1. The project is implemented by UNESCO's Division for Secondary, Technical and Vocational Education together with the UNESCO Field Offices in the target countries, in collaboration with the National Science Sector and the Social and Human Science Sector.

The methodology for data collection covered a combination of surveys, secondary data collection, in-depth consultations and focus group interviews with various stakeholders. Stakeholders who participated in the survey and qualitative interviews were the girls themselves and their families, community leaders, local authorities, schools, training centres and local NGOs.

Overall, the analysis provided the context for creating a tailor-made technical and vocational skills training programme.

II.3.2 Sensitisation of teachers/trainers and education planners

Throughout, special attention was paid to raising awareness of the gender dimensions of poverty, vulnerability and the need for gender-sensitive education and training opportunities among education planners, managers and teachers/trainers by involving them in various phases of the pilot activities, and also by holding workshops to provide platforms for the exchange of ideas and experiences.

In Indonesia, for example, a workshop was organised for government and school partners to familiarise them with the issues to be dealt with by the project such as poverty reduction, gender-sensitive and inclusive education, girls' access to education and training and job opportunities for girls in technology-based fields. With assistance from UNESCO, the participants made detailed plans for the design and implementation of the training programme.

II.3.3 Technical-based vocational training programme for girls

The project provided for the piloting of innovative approaches at community level which could inspire the design of national programmes to extend the reach of vocational training to marginalized and out-of-school girls, women and young people in general.

As a result of the community analysis, different occupations were identified as purposeful work projects. Within the stated timeframe, the girls were then required to develop their occupational skills by accomplishing a task that required knowledge and skill. This typically involved a very high level of engagement, energy and commitment. The work projects provided the key to all other learning initiatives.

To date, pilot training activities have been undertaken in eight project sites in three project countries (Cambodia, Indonesia and Nepal), mostly in rural and semi-rural areas[2]. It is hoped that the pilot activities will successfully demonstrate ways and means of reaching out to a target group which national technical and vocational training systems have so far had limited success in reaching.

II.3.4 Monitoring and evaluation

An external team of national and regional researchers periodically followed the project, providing independent critical analysis and evaluation. Their evaluation was based on regular progress reporting by trainers, national project coordinators and participating researchers. This provided a comprehensive overview of the achievements, the level of gender-sensitivity and awareness of the target group, teachers, education planners and other local stakeholders, as well as problems encountered.

The tools used for gathering information for the monitoring exercise included: personal interviews, questionnaires, observations, documentary reading (attendance, pattern sheets, forms, trainees' notes etc.) and informal conversations with the Community Learning Centre (CLC) staff, trainers and trainees and local NGOs. Open-ended questionnaires for conducting interviews were developed on the basis of the indicators.

A final evaluation meeting bringing together all key actors involved at country level was held at the end of project implementation.

II.3.5 Policy guidelines and recommendations

A compilation and review of national policies concerning education, gender equity and poverty reduction have been carried out by the three participating countries with the aim of analysing the extent to which issues related to gender-sensitive pro-poor technical education and skills training are dealt with.

Guidelines and recommendations have been produced for policy-makers and education planners based on the empirical evidence obtained during monitoring and evaluation of the pilot activities.

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2. *The following communities participated in the project as pilot sites: Chamcar Bei in the Kep Province and Prei in the Siem Riep Province in Cambodia, Karawang in West Java, Mataram and Kediri in Lombok in Indonesia, Lalitpur and Bhaktapur District in the Kathmandu Valley and Rasuwa District in the Central development Region in Nepal.*

A series of workshops involving stakeholders at all levels (ministry officials, local governments, schools, communities, parents, local business sectors) were organised during which the progress and results of the project were shared and issues related to the gender dimensions of technical and vocational education, local labour markets and prevailing social structures were explored.

II.4 Methodology

Designing a skills training project for marginalized girls involves an understanding of how the needs of this group differ from those of school-girls and older women in their village. It is also necessary to understand the social and cultural constraints on their behaviour and movements and how important their new skills are to improving their economic positions and social status, thereby enabling them to access other rights and make improvements in their quality of life.

Given the fact that many of the girls had not been in contact with a learning environment for a very long time, the teaching experience was based on informal interaction between trainer or facilitator and learner, in addition to learning by demonstration and doing.

On a day-to-day basis, the facilitators were encouraged to guide the trainees to work from their present competency levels and challenge and stretch themselves to progress to higher levels. In this way, the trainees could hold themselves to their own standards of excellence and experience pride in their achievements.

Learning was also, for the most part, cooperative rather than competitive. It was clear that the trainees worked best when required to demonstrate leadership in training activities, peer teaching and/or working with less literate trainees. This helped reinforce the values of personal responsibility, risk-taking and self-reliance as paths out of poverty.

The need for flexibility adopted in the training content, in addition to regular monitoring, helped trainees sustain their interest in the course and complete it.

A four-pronged strategy has been applied to ensure the success and sustainability of the training activities.

1) **A participatory approach** is already applied at the project planning stage and followed by the implementation of the various activities undertaken in collaboration with a wide range of partners**.** The pilot training activities are being conducted by school teachers in some cases and in others by specialised NGOs, hosted in schools or CLCs and monitored and supervised by national and regional researchers. Ministries of education and national commissions collaborate in testing and certifying the skills and integrating the final recommendations into national policies.

2) **Training activities tailored to the specific geographical, social and cultural context and needs.** This feature is particularly important when dealing with target groups who have special needs and constraints. In order to design the training programme, in-depth consultations with all the stakeholders were undertaken. These served to identify appropriate technological skills which meet the needs of the poor girls in the specific target communities and enable them to find decent work and, at the same time, benefit the overall development of the community. The assessment includes an analysis of the economic situation of each community, existing industries and the living conditions of the girls and their families (access to education/training, employment prospects, etc.).

3) **Linking grassroot level activities with national programmes**. The project provides for the piloting of innovative approaches at community level which support the design of national programmes aiming to enhance the outreach of vocational training to marginalized and out-of-school girls, women and young people in general.

4) **Monitoring and evaluation** is integral to the project to provide periodical assessment of the progress and achievements of the pilot training programme. An external team of national and regional researchers is following the project closely and should provide an independent critical analysis and evaluation of the project.

II.5 Institutional arrangements

On an institutional level, the project was elaborated by UNESCO Headquarters, Field Offices and National Commissions in collaboration with national Ministries of Education, local beneficiaries and NGOs as training providers.

The Field Offices reported regularly on the progress of the pilot activities to UNESCO Headquarters, from where the coordination team communicated information on project ac-

tivities both across Sectors (through evaluation meetings coordinated by the Sector for Social and Human Sciences), as well as to colleagues in the field.

Ministries of Education and National Commissions collaborate in testing and certifying the skills and integrating the final recommendations into national policies. Planners and managers (educational planners, school teachers, technical resource persons, trainers, researchers) at district as well as central level have been involved in the process of project implementation and have developed their capacity in this sub-sector.

Training and technical assistance drew on local expertise in the project countries with technical back-up from international experts where needed. Facilities of local vocational schools or CLCs were used as the training venues, as well as playing a role in the management and coordination of different project activities. The pilot training activities are being conducted by school teachers in some cases and by specialised NGOs in others.

The involvement of local actors and authorities was seen as crucial to ensuring the relevance of skills-based training to local development, social and labour market needs, local ownership and the impact of activities. Mechanisms for continuous planning and management were also built into the project process to encourage the active participation of stakeholders in policy dialogue and decision-making.

The projects were monitored and supervised by national and regional researchers.

Part III.

Country overviews

This section provides an overview of the socio-economic and educational situation in the three participating countries: Cambodia, Indonesia and Nepal. While all three exhibit distinct differences and diversity in terms of culture, geography, political structures and levels of economic development, they all face a similar range of issues related to poverty and lifestyle known to affect whether or not girls attend school and access different levels of education provision, as well as economic and employment opportunities.

Part III. Participating countries: Country overviews

III.1 Cambodia

III.1.1 Socio-economic situation

At the last census in 1998, Cambodia had a total population of 11.42 million people, 52% female, with 43% under the age of 15. Of the total population, 83% live in rural areas (National Institute of Statistics, 1998).

Cambodia is experiencing a number of rapid political and economic transitions. On the one hand, the country is still emerging from a long period of internal conflict and instability in its international relations while, on the other, it is moving towards an open market integrated within the global economy.

In spite of three years of accelerated economic growth, the poverty rate has declined only slightly, from 39% in 1994 to 36.1% in 1997 (ADB, 2001)[3]. A report released by UNICEF in 2003 lists Cambodia's gross national income as $280 per capita. The country is considered to have one of the worst Human Development Index Scores of 0.541 and is ranked 130th out of 174 countries in the UNDP Human Development Report for 2002. Life expectancy for the general population is only 56.4 years.

The poor still have limited access to natural resources such as forestry and fishing, basic social services and facilities. Poverty remains a particularly serious problem in rural areas, with rural households accounting for more than 90% of the total number of poor. Poverty rates are higher for households where the head of household has had neither formal education or only some primary schooling.

III.1.2 Levels of education

Not surprisingly, in a country where reconstruction and meeting basic needs are priorities for the majority of communities, the household allocation to education is less than 1.1%. Children from poor families, especially girls, are unable to avail themselves of education and skills train-ing programmes either because there are no training institutions within their localities or they cannot afford to enrol. Many who do enrol drop out after one or two years, virtually guaranteeing that they will not develop their literacy skills fully and will fall into low-skilled jobs – decreasing significantly their chances of breaking out from the poverty cycle. The adult literacy rate for Cambodian men is 79.8% and for women 57.1%. A study carried out by the Ministry of Education, Youth and Sport and UNESCO reported that only 37% of Cambodia's adult population is functionally literate.

Making up the shortfall in access is difficult as only 8% of the national budget is spent on education, while about a third pays for defence and security. Pre-school services are unavailable to over 90% of the child population. Only 52% of primary schools offer all six grades. In rural Cambodia 25% of boys and 12% of girls enrol in school at the lower secondary level (age 12); 4.2% and 1.7% enrol at upper secondary level (age 15). Less than 5% of primary school teachers have completed high school. The number of students enrolled at tertiary level in 2001 was 25,080 in ten state-run and six private institutions.

Girls have the lowest school enrolment rates at all levels of education and the highest dropout rate. Overall, about 42% of Cambodian women and 21% of men above the age of 15 have never attended school.

III.1.3 Labour market conditions

The fact that over 40% of the population is below the age of 15 means that demands on the employment market are high, and employment opportunities are grossly insufficient. Only 10% of the population is engaged in a skilled occupation. 71% of Cambodia's labour force in 1998 was involved in agriculture. Approximately 16.5% of children between the ages of 5 and 17 work. More than half of these are over the age of 14, and 89% are engaged in small-scale agriculture. Only 4% of working children are engaged in larger scale enterprises, including brick factories and rubber plantations.

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3. 36.1 % of the population is living below the poverty line of US$ 0.46-0.63.

According to NGO reports, women make up 60% of agricultural workers, 85% of the business work force, 70% of the industrial work force and 60% of all service sector workers. On average, Cambodian women receive one third less pay than men with similar education and experience for comparable work. There are 80,000 to 100,000 commercial sex workers in Cambodia, 30% of whom are under 18. A survey by a local human rights NGO found that 40% of women and girls who work as prostitutes do so voluntarily, while 60% have been forced to work as prostitutes or have been deceived into prostitution.

III.1.4 Conditions of women

Girls tend to get married early and women head 26% of households. But, in their family life, many women do not have access to reproductive health services, information on family planning, HIV/AIDS or hygiene standards.

The total fertility rate is 4.2 children per woman but out of 100,000 live births, 437 mothers die. It is estimated that 2,000 Cambodian women die each year of childbirth-related causes and another 200,000 have their health seriously and adversely affected due to pregnancy and delivery-related complications.

Women are seriously under-represented at the level of political and economic decision-making, constituting only 10% of all elected leaders at provincial and village levels. Of 25 ministers, only two women hold a ministerial portfolio and there are four women Secretaries of State out of a total of 50. Of the 122 members of the National Assembly, only ten are women.

A recent research study in Cambodia focusing on gender issues in technical and vocational education identified the following as reasons why female students tend to drop out from their courses: arranged marriage; family illness; decline in family living standards; distance from school (Gender and Development for Cambodia, 2002). Robinson-Pant (2002) has also pointed to the dominance of male trainers, lack of time and male institutional bias as other important factors restricting girls from receiving formal training at secondary and vocational levels. Looking at these factors suggests that the trends within vocational education and training policy tend to reinforce women's subordinate position in society.

III.1.5 National education reforms and programmes

The Royal Government of Cambodia, led by the Ministry of Education, Youth and Sport (MoEYS), has introduced a number of policy measures to reach efficiency targets within different levels of education. The Government would like to reach at least 95% progression and transition rates by 2015 at all levels and reduce drop-out rates to less than 5% in primary and secondary schools. Other efficiency targets are to reduce the proportion of non-teaching staff to around 15% and increase pupil/teacher ratios for primary education to 35:1 and secondary education to 25:1.

The creation of additional facilities, the provision of core instructional materials across the country and improvements in service delivery in under-served areas are also seen as part of the package. It is intended that every child will have the opportunity to tackle challenging assignments in all subject matters regardless of gender, disability or socio-economic background.

Strategies facilitating entry and re-entry in the formal system will be complemented by measures providing alternative non-formal, literacy and vocational training opportunities for out-of-school young people and adults. For post-basic education, the strategy will be to promote both private sector involvement and user charges for students and trainees, while providing performance-based scholarships and dormitories for the poor, girls and other disadvantaged groups (Council for Social Development, 2003-2005).

In order to implement these policies, an increase of at least 70% in allocation to the education budget is needed by 2005. In order to sustain and raise quality, the target will be a non-wage share of between 40-45% over the next five years, while maintaining increases in the salaries of teaching and non-teaching staff in line with service guidelines.

At grassroots level, the network of CLCs is being strategically expanded to poor rural villages around Cambodia to facilitate the achievement of the above objectives. The Government has lauded the achievements of CLCs in effectively providing education and skills training opportunities for the poor, mainly using a non-formal approach, and highly encouraged its expansion to other poor rural areas (MoEYS-Department of Non-Formal Education, 2004).

III.1.6 Technical and vocational education

It is envisaged that the Department for Technical and Vocational Education –working with the Department of Non-Formal Education of the Ministry of Education, Youth and Sport– will play an important role in the attainment of the above-stated goals.

The majority of basic skills training programmes in Cambodia are designed to assist trainees to develop their own businesses rather than train as potential employees for small to large scale firms. This would seem to be an appropriate strategy given that a large percentage of the population lives in rural areas where there are few such employers.

A National Training Fund (NTF) programme, with pro-poor targeting, has been created and an institutional reform study was carried out in late 2002. The long-term goal is to create a dynamic, responsive and efficient TVET system that is able to provide skilled human resources to underpin the country's economic development. A related long-term strategic objective will be to integrate the technical and vocational education structure with the rest of the education system to enable horizontal and vertical movement between the different streams –general, technical and vocational education– as well as indicate equivalencies, not only in terms of educational attainment but also in terms of employment. A cross-cutting long-term objective will be to encourage increased participation of other public, NGO and private sector interests and businesses in the governance, planning and management of non-formal/informal TVET.

The programme will be nationwide, covering the four Phnom-Penh Technical Institutes, the three TVET Institutes outside Phnom-Penh and the 32 provincial TVET centres for the long-term TVET programmes by 2005. The participation of young people from the poorest families and the female population is expected to rise to 20% and 45% respectively. The focus on the provinces rather than Phnom-Penh is designed to ensure that 30% of TVET provision falls in non-urban areas (MoEYS, 2002).

Various other reforms have been initiated by the TVET Department, particularly through the Basic Skills Project (BSP), a loan assistance scheme granted by the Asian Development Bank. The project provided assistance in improving TVET policy, planning and management. New curricula were developed, which are flexible, modular and competency-based, as well as relevant to market needs. Modern workshops have been established to impart more practical training. The National Technical Training Institute (NTTI) has been established which, it is hoped, will become a national centre of excellence for curriculum development, teacher training, and learning resources development. A TVET strategic plan and a new TVET education system for Cambodia have been formulated.

There is still a need for massive expansion in TVET provision. Fifteen key policy shifts have been identified, including the adoption of broader market-guided, pro-poor targeting and more decentralised TVET provision which can provide education and training for the formal and non-formal sectors. However, the type of training model required by each specific vulnerable group varies considerably.

III.1.7 Gender-based TVET policy

In Cambodia, vocational skills training has become an important component in reintegration strategies for girls and women who were victims of violence, abuse and trafficking during the Khmer Rouge period. One of the most effective TVET programmes currently operating in Cambodia is based on the premise that most women already have marketable skills but require confidence and assistance in saving their own capital so that they can start to build businesses based on their skills.

Another training/employment generation model which has been quite successful, particularly for women with rudimentary entrepreneurial skills, is the NGO non-profit business or sheltered workshop model. It develops the occupational skills of the trainees and provides an income upon graduation by guaranteeing a market for their products. Most of the NGO non-profit business skills training programmes also incorporate self-help principles into their programme structures. This approach requires less external resources, helps trainees set goals, access local resources and strengthen the sustainability of their income generating skills.

In terms of institutional framework, the Gender and Equal Opportunities (GEO) Unit was established in 1993 within the Department of Technical Education and Vocational Training (DTEVT) at the Ministry of Education, Youth and Sports. It was previously known as the Women in Development (WID) Team. The GEO Unit has set out strategies and plans to increase the participation of women in all training courses. It has also produced guidelines and training manuals and has conducted workshops on gender issues within

the TVET sector. Currently, the Unit is dormant due to lack of planned activities and funding.

From 1993 to 1998, the MWA implemented a training programme aimed particularly at girls and women aged 13 to 45 who were either illiterate or with poor levels of literacy. This programme covered 209 villages in five provinces and reached a total of 16,000 participants. A Family Economic Development Department was established covering 72 villages in six provinces. There were 2,798 borrowers in 2002.

The Five-Year Plan (2001-2005) of the Ministry of Women's Affairs (MWA) focuses on nine points in scientific, technical and vocational education for women development:

1) Providing training to women and veterans so that they can take responsibility in making decisions when choosing a career in their enterprises.
2) Strengthening women and veterans' ability to understand the credit scheme system through meeting and training.
3) Improving knowledge and strengthening capacity for small business management and small enterprises through workshops for women and veterans.
4) Encouraging the relevant department to provide agricultural technology and fisheries to ensure security of food supplies for families.
5) Providing training in techniques for gaining independence to maintain sustainable business performance within each centre.
6) Providing education and training in initiatives to increase income.

7) Providing training in business interaction in financial management and technical skills for women, veterans and especially young women in the training centre, in order to become trainers of trainers.
8) Encouraging data collection research on women entrepreneurs.
9) Encouraging and formulating policies for women in business associations by putting them in touch with relevant institutions to provide training techniques.

III.2 Indonesia

III.2.1 Socio-economic situation

Economic instability and poverty were the major problems experienced by Indonesia after independence. Steady economic growth began in the early 1970s when the New Order Government policies began to take effect. Living standards among Indonesians have increased in parallel with economic growth. The proportion of the general population living in poverty is declining.

The following table shows that between 1976 and 1998, the proportion of the total population living below the poverty line decreased from 54.2 million (40.08%) in 1976 to 40.6 million (26.9%) in 1981, and from 27.2 million (15.1%) in 1990 to 22.5 million (11.34%) in 1996.

Table 1: Number and percentage of population in poverty, selected years 1976-2000 (BPS, 1998; BPS, 2000)

Year	No. of population below the poverty line			% of population below the poverty line		
	Urban	Rural	All	Urban	Rural	All
1976	10,0	44,2	54,2	38.79	40.37	40.08
1978	8,3	38,9	47,2	30.84	33.38	33.31
1980	9,5	32,8	42,3	29.04	28.42	28.56
1981	9,3	31,3	40,6	28.06	26.49	26.85
1984	9,3	25,7	35,0	23.14	21.18	21.64
1987	9,7	20,3	30.0	20.14	16.14	17.42
1990	9,4	17,8	27,2	16.75	14.33	15.08
1993	8,7	17,2	25,9	13.45	13.79	13.67
1996	7,2	15,3	22,5	9.71	12.30	11.34
1998	17,6	31,9	49,5	21.9	25.7	24.2
1999	12.4	25.1	37.5	15.1	20.2	18.2
2000	9.1	28.1	37.3	11.0	24.7	18.9

However, due to the sudden and unexpected economic crisis in 1998 –reflected in the 80% deflation of the Rupiah, the 15% contraction of GDP and a 60% rise in interest rates– the percentage of people living in poverty jumped sharply from 34.5 million (17.6%) in February 1996 to 49.5 million (24.2%) in December 1998. This means that, as a result of the economic crisis, within 22 months the number of people living below the poverty line increased by 15 million. BPS (2000) reported that in February 2000 there were 37.3 million people (19% of the Indonesian population, excluding Maluku and Aceh) living below the poverty line. The Central Bureau of Statistics reported that in 2004 36.1 million (16.66%) of the Indonesian population lived below the poverty line (CBS, 2005).

Many of the poor in Indonesia lack assets and are for the most part landless labourers, marginal farmers and casual workers in the cities. Data in 2004 reported that approximately 80% of poor families in rural areas depend on the agricultural sector for their living. In urban areas, on the other hand, about 75% depend on non-agricultural activities for their livelihoods (UN-SFIR, 2004).

There are also significant correlations between levels of poverty and the number of family members. The size and composition of families may affect the allocation of financial resources among household members, which in turn would affect the overall welfare of the family. Large households may result in overcrowded dwellings, which can lead to unfavourable health conditions. Numerous studies have reported that the poorest families are larger than non-poor families.

III.2.2 Levels of education

As in Cambodia, heads of household in the poorest families generally have low educational levels. Data from the BPS in 1999 showed that more than half (72.1% in rural areas and 57% in urban areas) of household heads in the poorest families had not graduated from elementary school and only 24.3% in rural areas and 31.4% in urban areas had graduated from elementary school (see Table 2). These high percentages of heads of households who are not able to read and write correlate strongly with the poverty incidence at the household level.

The Net Enrolment Ratio (NER) of 95.2% at the national level shows that most children enrolled in primary education in 1999/2000. Although not significant, the intake rate for girls in primary education is lower than for boys in every province, as indicated by a 7.8% gender gap nationally. The data also indicates that boys have slightly higher intake, gross enrolment and dropout rates at primary level. In contrast, girls have a higher rate of survival and completion at this level. However, both boys and girls have comparable repetition rates at primary education level.

III.2.3 Labour market conditions

Data in 1997 indicated that 57% of women working in rural areas are engaged in the agricultural sector. The corresponding proportion in urban areas is 5%. In contrast, urban women are more likely to work in sales (43%), manufacturing industries (18%), services (15%) and professional and technical jobs (9%) (BPS, 1997).

Women's education is inversely related to their propensity to work in agriculture; employed women with no education are much more likely to be

Table 2: Percentage of heads of household categorised by ability to read and write and by sex (BPS, 1997)

Area and sex	Able to read and write		Not able to read and write
	Latin	Others	
Urban			
Female	74.87	2.26	22.87
Male	94.85	0.70	4.45
Rural			
Female	46.00	6.32	47.69
Male	84.28	2.06	13.66
Urban + Rural			
Female	56.91	4.79	38.30
Male	88.05	1.58	10.37

Table 3: % distribution of population 15 years of age and over who worked in main industry, by area, type and sex (BPS, 1997)

Main industry	Urban		Rural		Urban + Rural	
	Female	Male	Female	Male	Female	Male
Primary	7.45	10.16	63.54	61.43	46.01	43.67
Secondary	20.16	27.71	11.73	14.89	14.37	19.33
Tertiary	73.39	62.13	24.73	23.68	39.62	37.00
Total	100.0	100.0	100.0	100.0	100.0	100.0

working in agriculture than better educated women. A survey in 1997 showed that 65% of working women with no education worked in agriculture, compared to only 16% of women with secondary schooling. In contrast, better-educated women are more likely to be employed in sales, industrial, professional, technical and clerical occupations. The data also indicate that women's occupations vary by age. The lack of education has lowered women's purchasing power and has pushed increasing numbers of women into marginal labour force activities. The proportion of women working in agriculture was highest for both the young and old age groups (BPS, 1997).

Table 3 indicates that more women (46.01%) work in primary industries (i.e. the agricultural sector) than men (43.67%). However, from Table 4 we can see that more women occupy unpaid working status than men in rural and urban areas. Table 4 also indicates that more men are self-employed, assisted by family members/temporary workers (who usually were female

workers). The high percentage of female unpaid workers in rural areas in Table 4 (46.94%) reveals their distinctive unequal treatment and discriminatory wage and benefit practices. The 2002 National Social and Economic Survey (Susenas) revealed that the participation rate of women in the labour force had risen to 50.1% compared with men (BPS, 2002). The Survey also showed that unpaid domestic work by women in 2002 only increased slightly from 37.26% to 37.8%. Though Table 4 shows a high percentage of women working as private employees in urban areas (39.7%), they are usually given work with lower pay and status. Numerous female factory workers are employed as temporary daily labourers (not as permanent employees) in order to free the employers from the obligation of providing benefits (e.g. for maternity). The International Labour Organisation (ILO) in Jakarta reported that in 2003 women only received approximately 68% of men's level of wages.

Table 4: % distribution of population 15 years of age and over by employment status, area and sex (BPS, 1997).

Employment status	Urban		Rural		Urban + Rural	
	Female	Male	Female	Male	Female	Male
Self-employed (own account worker)	19.83	19.56	16.52	22.04	17.56	21.18
Self-employed, assisted by family member/temporary worker	11.82	15.62	16.32	37.18	14.92	29.71
Employer	0.77	2.04	0.25	0.84	0.41	1.26
Government employees	11.93	15.08	3.80	5.56	6.34	8.86
Private employees	39.70	43.50	16.15	22.29	23.51	29.63
Unpaid worker	15.95	4.21	46.94	12.10	37.26	9.37
Total	100.0	100.0	100.0	100.0	100.0	100.0

III.2.4 Conditions of women

A discussion paper prepared for UNESCO in May 2001 paints a picture of the state of gender equity in basic education in Indonesia. Although there has been some progress, gender disparities persist in some areas. The data reveals that gender parity reaches one at national level for all education levels whereas gender gaps in favour of boys increase for higher levels of education, with the largest gender differential found in higher education. The study indicated that boys have a higher Gross Enrolment Ratio (GER), survival and completion rates at the junior secondary education level. The data further indicates that girls are likely to have higher dropout rates at the same educational level. Moreover, girls experience lower rates of transition to junior secondary or subsequent levels (67.6% compared to 74.1% for boys). Gender bias continues in course selection, both in vocational secondary and higher education.

III.2.5 National education reforms and programmes

Formal basic education in Indonesia consists of a six-year primary school cycle and a three-year secondary school (SLTP) cycle. In 1984, the government launched a six-year compulsory education programme for primary school age children, aged 7 to 12, that increased the primary education participation rate from 79.3% in 1984 to 92.2% in 1993.

The government then extended the Compulsory Education programme (*Wajib Belajar [Wajar]*) to nine years, aiming to provide the total population of 7 to 15 year olds with nine years of compulsory education by the year 2003/04. The Central Independent Monitoring Unit (2000) indicates that 82% of students now attend public primary schools and 18% go to private schools.

The data reveal that 16% of education provision is channelled through the Islamic School or Madrasah system under the auspices of the Ministry of Religious Affairs. The Islamic schools accommodate 11% of primary students and 18% of junior secondary students.

Numerous programmes and policies to reduce poverty have also been implemented by the government and intensified since 1994 through the Presidential Instruction for Left-Behind Villages Programme (Program Inpres Desa Tertinggal [IDT]), Village Infrastructure Projects (Pembangunan Prasarana Pendukung Desa [P3DT]), the Sub-district Development Programme (Program Pembangunan Kecamatan [PPK]), and the Urban Poverty Reduction Programme (Program Penanggulangan Kemiskinan Perkotaan [P2KP]).

In order to assist the poorest families in the period after the economic crisis of 1998, the government launched a poverty alleviation programme called the Social Safety Net *(Jaringan Pengaman Social [JPS])*. This programme focused on building basic needs and skills readiness, such as (1) rice and food supply; (2) health and education services; (3) expansion of the labour market; (4) facilities and equipment for agricultural activities; (5) credit for small or home industries for poor families; and (6) housing for poor families.

In 2002, the government launched Presidential Decrees No. 124 Year 2001; No. 8 Year 2002; and No. 34 Year 2002 to ensure that poverty alleviation policies and programmes are better coordinated.

III.2.6 Technical and vocational education

The main characteristic of the provision of vocational education and training in Indonesia is that it is dominated by private institutions. The number of senior secondary graduates from private schools is now equal to that of graduates from public schools, and the number of graduates from private post-secondary institutions and universities is more than double that from public institutions.

Enrolment in private vocational training centres is over 1.5 million, significantly higher than the 50,000 trainees in Ministry of Manpower (MOM) vocational centres. MOM is the main supplier of public training and is responsible for overall coordination.

The Presidential Instruction No.9 Year 2000 directs all government agencies, including local government units, to implement gender mainstreaming in their planning, formulation and implementation, as well as monitoring and evaluation of programmes and policies. Indonesia's plans on gender are thus found in the different programmes of ministries and agencies created in response to the presidential gender mainstreaming instruction. These include programmes to increase opportunities for girls to participate in science, technology and vocational education; to increase women's knowledge of the application of appropriate technologies; and to increase women's access to technology, financial resources and market information (APGEST-UNESCO, 2002).

III.3 Nepal

III.3.1 Socio-economic situation

Nepal is a landlocked country bordering China in the north and India in the east, south and west. It has a surface area of approximately 147,181 square kilometres. Nepal is a mosaic of geographical and social diversities. Geographically, it is layered in three distinct zones: (1) the Himalayas, the high mountain range with snow-covered peaks in the north; (2) the Middle Hill region with lush green valleys; and (3) the Terai, a strip of fertile plains in the south. All these geographic belts of Nepal run from east to west.

According to the 2001 census, Nepal had a population of 23,151,423 people, from diverse social, cultural and ethnic backgrounds. Indeed, the census noted the presence of 102 ethnic groups and recorded 92 languages, of which more than a dozen –including the national language 'Nepali'– are in active use among a significant proportion of the population.

The population growth rate in the country is 2.1% per annum and population density is 160 persons per square kilometre. Women constitute 50.1% of the total population. The urban population represents 14.2%.

While Nepal is one of the countries in Asia that has recorded a significant improvement in the Human Development Index (HDI)[4] over the past decade, poverty indicators remain substantial, even by South Asian standards. The level of absolute poverty is among the highest in Asia: more than nine million people, accounting for 40% of the population, are estimated to live below the poverty line. Income disparities have worsened between rural areas (particularly in hill and mountain districts) and urban areas, and among cultural groups (ADB, 2001).

Poverty in Nepal not only has a gender component but also goes hand in hand with a highly stratified society. Nepal is a Hindu kingdom and has inherited the Hindu caste system which divides the population into several tiers according to caste hierarchy. There are caste-specific roles and people born to lower castes are forced to take a lower social role and position. Even today, although caste-based discrimination has been banned by law, people born within the lowest caste are discriminated against as 'untouchable' and considered unfit for social interaction with the so-called 'upper castes'.

These people now call themselves 'The Dalits' (The Oppressed). The Dalits constitute about 15% of the population.

III.3.2 Levels of education

Nepal's adult literacy rate of 39.2% is one of the lowest in Asia, and the 11th lowest in the world. The literacy rate for women is only 45%. There are pronounced regional and gender disparities in school enrolment rates: the primary school net enrolment rate is roughly 80% for boys but only 61% for girls. Girls drop out from school much more than boys because they are needed as workers and helpers for their mothers at home. As a result, very few Nepalese girls continue their schooling beyond the age of ten. Subedi (1993) indicated that 77% of girls between 6 and 15 years of age leave school.

III.3.3 Labour market

An overview of the general scenario related to female employment based on the National Labour Force Survey 1998/99 and the National Population Census 2001 reflects that 95 % of the female workforce is in informal employment. The number of self-employed female workers (29 %) and unpaid family workers (63%) is surprisingly high. As a result, there are very few women workers with permanent jobs: daily wage earners constitute 61% of the female workforce. Women do not occupy higher decision-making posts and are mainly employed at junior clerical level. Women are discriminated against in terms of monthly income, receiving only 57% of the earnings of their male counterparts. Indeed, gender discrimination generally starts from birth in Nepal's socio-economic structure. Low wages, long working hours, no fringe benefits, no incentives and a rapidly increasing tendency to work at home are the main features of current labour conditions for women rather than men. Furthermore, women are rarely involved in organisational activities and so have little opportunity to voice their problems.

More than three quarters of female workers do unskilled and semi-skilled jobs. Most of these have been working for the last five years or more. The majority of agricultural and construction workers are daily wage earners; piece-rate wages are also widespread in sectors like carpet weaving and other manufacturing fields.

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4. The HDI value for Nepal was 0.42 in 1990, placing Nepal in 125th position. The value has significantly increased to 0.48, improving the ranking to 129th position in 1999.

Although the workplace environment differs from sector to sector –and within specific sectors– it is generally static and no noticeable changes were observed in the majority of establishments inspected (GEFONT/ KAD, 2001).

III.3.4 Conditions of women

Gender-based exclusion in Nepal is pervasive and deep-rooted, with discrimination against women reducing their physical survival, health and educational opportunities, ownership of assets, mobility and overall status.

Nepalese families give very high preference to their sons. They are regarded as economic insurance against the insecurities of old age, they perform the death rites for their parents and they carry on the family name and legacy. On the other hand, daughters are to be given away for marriage, to care for their husbands' parents and protect their husband's property. They are not perceived to be suitable candidates for paid work.

In rural areas, early marriage for girls is still commonly practised and daughters are supposed to leave their parents after marriage. For these reasons, many parents consider that investment in their daughters' future –such as education– is unnecessary. In terms of social interaction, daughters are, for the most part, confined to their homes. They have little contact with males outside their family or females outside their community. Hence, they have hardly any access to information from the outside world, knowledge and resources. (UNICEF, 1996).

In rural areas, Nepalese women and girls contribute more than 53% of the household income. According to the 1991 census, women comprised 40% of the total economically active population. They formed the largest proportion in the agricultural labour force. About 94% of the employed women are in the agricultural sector. Several studies have also confirmed that women's input to agricultural labour is over 58%. Farming activities included crop farming, kitchen gardening, livestock raising and forestry. The 1991 census report also showed that the proportion of women in sales and services had increased significantly. Women constitute 53% of the agricultural labour force, 33% of sales workers and 29% of service sector workers. Overall, in 1995/96, women constituted 49% of the employed population.

III.3.5 Technical and vocational education

Technical and vocational education was first introduced into Nepal in 1979. It emphasised skills training and occupational preparation including physical facilities, equipment and training materials in different regions of the country, both rural and urban. The technical training was expected to impart skills, knowledge and attitudes to school dropouts and school-leavers, including the poor young people who are unable to pursue higher education (UNDP, 1998).

Though the constitution of Nepal from 1962 and various laws forbade discrimination against women and provided for equality of opportunities, the idea of women's advancement and development only really entered the national consciousness when the United Nations declared 1975–1985 as the UN Decade for Women. At that time, the first government policy for women was formulated within the Sixth Five-Year Plan (1980-1985) which emphasised the equal participation of women in national socio-economic development and the need to raise women's status in society through better education and training, better health and nutrition, reduction in poverty and improvement in skills development and income-generating activities (Women's Development and Status, 1993).

The successive national five-year plans have continued to issue gender equality policy statements, such as increasing the literacy of women by setting quotas and special incentives for women in the education sector and increasing the participation of women in training programmes. Policies have also been created to raise employment opportunities for women through the provision of credit, and skills and entrepreneurship training. Comings et al. (1994) however pointed out, that in all these national level plans no provisions were made to introduce measures through which greater participation of women in development might be actually achieved.

Nepal's Ninth Plan (1997-2002) gave concrete shape to the gender equity goals for the first time in the formulation, implementation and evaluation of sectoral policies and programmes. Adopting poverty alleviation as an objective, it provides opportunities for women in horticulture, livestock and sericulture development, appropriate skills training for rural women and participation in preparing and implementing environmental programmes (APGEST-UNESCO, 2002).

And it is also only in recent years that the Council for Technical Education and Vocational Training (CTEVT) –originally formed in 1988 as a national institution responsible for policy formulation, co-ordination, standardisation and certification of TVET activities in Nepal– has formulated poli-cies and strategies aimed at enhancing women's status through education and employment op-portunities. In its 1999 policy document, CTEVT called for programmes to address gender and equity issues in access to TVET.

In October 1999, the policy paper entitled "Na-tional Policy Paper on Technical Education and Vocation Training" was prepared and ap-proved by the Council for Technical Education and Vocational Training (CTEVT). This national policy stresses that all the TVET programmes, both in public and private sectors, should pro-vide equal opportunities for under-privileged sections of the community regardless of their caste, gender and the location of their settle-ments (CTEVT, 1999).

Moreover, a study in Nepal on training and em-ployment for school dropout girls and women revealed that girls/women who cannot contin-ue their education are especially interested in learning skills that they can immediately use for employment (Sharma and Dhungel, 2002). The study thus emphasises that training needs to be organised in such a way that allows girls/women to truly participate, particularly in terms of costs and duration of training. It also points out that, in addition to occupational skills, the training cur-riculum should incorporate entrepreneurial skills in order to reinforce the use of occupational skills acquired through training. A related study con-ducted in Nepal identifies agriculture as one of the promising sectors for rural women's employ-ment, particularly those with little education. It points out the importance of implementing ap-propriate training courses to increase the agri-cultural productivity of women.

Various government and non-government or-ganisations are involved in the TVET sector and providing training to women and girls, depend-ing on the capacity and resources of the organi-sation. Recently, some ministries have started to formulate policies on formal and non-formal technical and vocational education, primarily providing training in technology-based skills with high market potential, including entrepre-neurship development for poor and marginal-ized women. This initiative is mainly in response to the government's "National Campaign for Poverty Reduction".

However, the present state of TVET in the coun-try is characterised by a great lack of coordina-tion between TVET providers within the govern-ment, and between the government and the pri-vate sector, including national and international NGOs. The Ministry of Women, Children and Social Welfare has been working as the national focal point for women's issues, but its capacity and efforts have proved to be insufficient.

Part IV.

Pilot projects

This section provides an overview of the pilot projects. For each country, there is a brief look at the location of pilot projects and a background to the needs assessment. The pilot projects are seen as case studies and information is provided including identification of the target group, implementation arrangements, methodological approach, project impact and sustainability measures.

Part IV. Pilot projects

IV.1 Cambodia

IV.1.1 Location of the pilot projects

Two poor rural villages were selected as pilot sites for the project in Cambodia: Prei Village, in the Samlot Srei Snam district of Siem Riep Province, and Chamcar Bei Village, in the Damnak Changeu district of Kep Province.

Unlike many other parts of the country, both Prei and Chamcar Bei villages remained Khmer Rouge strongholds well into the 1990s. As a result, they have both been left weakened by years of conflict and unequal access to economic and social opportunities and are now extremely poor rural farming communities.

Prei village is in Prey Commune, the Srei Snam district of the Province of Siem Riep, 434 kilometres northwest of Phnom-Penh, and 100 kilometres from Siem Riep town centre. The population is predominantly Khmer. Its isolation is due to the fact that heavy rains wash out the roads making movement to and from the village extremely difficult. A primary school was re-established by the government in 1997 in which a total of 330 students are enrolled, 72 of whom are girls (21.8%). The dropout rate is particularly high from grade three until grade six, when parents regard their children as old and strong enough to participate in household chores and in the fields.

In the past, Prei village was famous for its high-quality handloom-woven silk products. The villagers, especially the women, were celebrated for their skills and knowledge of the entire process of silk production, from growing mulberry trees and silk worm breeding to traditional weaving techniques. During the long years of conflict, the villagers became isolated and the traditional practices surrounding silk production ground to a halt. Many came to see silk production as a time-consuming activity that could not be relied on for family income and welfare.

Chamcar Bei (population: 2,625) is a predominantly agricultural community where the labour contribution of girls in the household and in the fields is seen as essential for family survival. Located in Pong Teuk commune, the Damnak Changaeu district of Krong Kaeb province, it is one of the 5 villages in the commune and covers a total land area of 56,597 square metres. It is about 190 kilometres southwest of Phnom-Penh and although the village is located only 16 kilometres from Krong Kaeb centre, it takes nearly an hour to get there by car or motorcycle because the road is in relatively poor condition. Three main roads cross the village and are also worsening in condition. The distance to the village market can be anywhere from one to eight kilometres. The residential lots are designated into four blocks – two in the lowland areas and two in the upland areas closer to the mountains.

Chamcar Bei is also mainly populated by former Khmer Rouge soldiers and their families who have settled there since 1997. It is recognised as one of the poorest and the most vulnerable communities in Cambodia, both by the government and the World Food Programme. UNESCO Phnom Penh has helped the village set up a CLC in order to facilitate the reintegration of the former Khmer Rouge into civilian society. All children in the village are enrolled in primary school, but the poorest have difficulties in maintaining regular attendance and/or completing their studies. The nearest secondary school is about six kilometres away and many drop out within a year.

The differences in geographical and cultural context of the two target villages in Cambodia have resulted in different needs for skill training activities. Nevertheless, both villages share some common problems. Many young men and women have left these communities, crossing the border into Thailand in search of income generating opportunities and finding work as construction workers or farmers instead.

Out-of-school girls and young women are particularly vulnerable to the post-conflict transitions taking place. Those who have left their villages in search of economic opportunities have often fallen prey to sex traffickers – a social problem that has increased alarmingly in Cambodia in recent years. Addressing the reasons behind the vulnerability of these young people is a major part of the process of stabilising the population and offering solutions to the poverty they experience.

IV.1.2 Needs assessment

Given the low literacy levels and the fact that a large proportion of the population have not received a full education, any moves towards scientific or technical skills training necessitated an extensive survey to identify needs, expectations, opportunities and constraints in both villages and the impact and the benefits of the proposed training.

The Analysis covered the following areas:

- Analysis of the socio-economic situation of communities, including the living conditions of girls and their families.
- Analysis of existing industries including employment/entrepreneurial prospects for women and girls.
- Identification and prioritisation of vocational training requirements for girls including criteria for the selection of project beneficiaries.

Group interviews were carried out with those women in both villages (educated or not) already involved in craft groups, vocational education groups, livestock groups and development committee groups. For group discussions, the size of the group ranged from eight to ten women[5]. A further 25% of the total households were chosen for individual interviews.

In Prei village, the Community Needs Analysis underscored the urgency of diversifying the local economy and generating more varied livelihood opportunities. Over the past years, the mulberry trees needed to produce silk have been replaced by banana trees and local vine production, and animal raising has replaced silkworm raising. Although Prei silk is high in quality, the costs associated with traditional production methods are also high – too high to compete with its Thai counterpart.

The primary choice for skills improvement activities in Prei village was reviving traditional silk weaving. But there was unanimous consensus that the girls would need to be brought up-to-date on technical innovations in silk production and weaving techniques and helped to create market linkages so that they could generate income earning opportunities from their traditional handloom-woven products. For these reasons, Ecole Chantier, or the Centre National de la Soie, was selected as the training provider. The training in silk production will not only contribute to alleviating the poverty of the learners but also promote the transfer of culture and knowledge from the older to the younger generation.

In Chamcar Bei village, general skills training in the various dimensions of agribusiness, particularly animal husbandry and agricultural crop production, were requested[6]. Though already the main source of income for the villagers, it was perceived that greater involvement of girls in these areas would contribute to a broader strategy, not only to increase family income levels but also to reduce un-advised migration, which could result in trafficking of the girls. It is even more appropriate for those families who do not possess land for farming. A training methodology was then developed to impart skills in agro-technology (rice-farming, livestock and poultry production, bio-diversified household gardening, household fishponds) and agricultural enterprises to the most needy girls in the village.

IV.1.3 Pilot training programmes

A. Training towards innovative techniques in sericulture and silk-weaving: Prei Village, Siem Riep Province

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• *Target group*

About 24 girls and young women from Prei village, aged between 18 and 30, were selected to attend the training programme. Recognising the need to harmonise the technical innovations with the silk-weaving traditions of Prei village, four of the elder village women (aged 39 to 57) were included in the training provision. Moreover, as the participation of men is seen as important in mulberry tree cultivation, two men from the village were invited to attend the module on mulberry tree growing.

• *Implementation arrangements*

The skills training programme was designed by the National Silk Centre "Ecole Chantier", a vocational school located in Siem Riep Province, in close coordination with the Provincial and District Offices of the Department of Non-Formal Education of the Ministry of Education, Youth and Sports (MoEYS) as well as the Provincial Agricultural Office. The training took place at the school, while NGOs in the Siem Riep area with experience in providing female-sensitive education, life skills and occupational training were consulted to refine the methodological approach taken.

The National Silk Centre is located approximately 16 kilometres from Srei Snam town centre and regularly offers courses related to silk production, including mulberry tree cultivation, silk-worm breeding, thread production, silk weaving, dressmaking and furnishing fabrics. It specialises in providing skills and livelihood possibilities for young adults aged 18 to 25 who have had little schooling and thus run the risk of exclusion from the reconstruction process in Cambodia.

Accommodation for the trainees was provided by the vocational school, with the participants housed in the female trainers' quarters within the school compound. Some stayed in the students' dormitories. A transportation subsidy of $2.00 per participant per week was also provided to allow trainees to go home to the village to visit their families every weekend.

• *Methodological approach*

Given the fact that almost half of the trainees had very little schooling and thus would experience learning difficulties, a non-formal teaching-learning approach was adopted. The trainees were divided into two groups according to literacy level and each of the non-literate girls was then paired to a trainee who had received some schooling and had basic functional skills in reading, writing and calculation.

The literate group was requested to help their classmates read training materials and understand the lessons throughout the training period. This proved effective not only in enhancing the learning pace of the more disadvantaged group, but also in encouraging peer support – a key factor in sustaining the interest and motivation of the trainees to stay and complete the training course.

In the village itself, the National Silk Centre provided and installed technically-improved silk cocoon shelves and a weaving loom at the UNESCO-funded CLC.

• *Impact*

A monitoring visit conducted by the project team and the national researcher in October 2003 revealed that the girls had become confident about their skills and were determined to be successful in their silk production livelihoods. The trainees were also happy to note that other girls in their and nearby villages had begun to show an interest in learning the same vocational skills.

During the focus group discussions, the girls and their families also noted that, in the past, community leaders and other villagers had been critical and unsupportive of the idea that young girls and women should revive the silk-weaving tradition of the community, believing that it was no longer a profitable and economically viable livelihood. Following the training, the same people had realised that silk weaving can be a women-led livelihood bringing income opportunities to the girls' families and economic welfare to the community as a whole.

This validation generated a change in trainees' attitudes to gender relations and women's rights to education and economic opportunities. The girls revealed that before participating in the training course they had stuck to the belief that when they got married, as tradition dictates, women should do what their husbands tell them. They revealed that what they had learned and experienced in the training programme had increased their awareness and helped build their confidence.

Finally, it is worth noting that the pilot project in the Prei village served as the entry point for establishing a CLC on a more permanent basis in the village. The project has effectively mobilised the support and interest of the village leaders and families to work together to address the education and training needs of the community.

• *Sustainability measures*

The Provincial Non-Formal Education Office and the Ecole Chantier promised assistance in finding markets for the hand-woven silk fabrics produced by the girls, with regular guidance to ensure the quality of the silk produced. It was also decided that selected learners would receive further training so that they could become village trainers themselves in silkworm production through the CLC.

In one neighbouring village, a number of women and girls –most of them belonging to women-headed households– had shown their strong interest in learning silk production skills and had created a women's group specifically for this purpose. The monitoring team for Prei village went in search of this group and found them working together to build a structure to house the silkworms that they had already begun to breed in their homes. The same women had also begun to grow mulberry trees. Other community members have indicated their interest in –and support for– the project by allocating a parcel of their farm land for growing mulberry trees.

Given the levels of interest in the training programme from surrounding villages, a plan was elaborated by the Provincial Non-Formal Education Office, along with the newly-established CLC, to expand the silk training course.

B. Training course in livestock and poultry production and care: Chamcar Bei Village, Kaep Province

• *Target group*

Approximately 28 out-of-school girls and young women aged between 15 and 30 were selected to attend the training course.

• *Implementation arrangements*

The skills training was implemented through the Chamcar Bei CLC in close collaboration with the Provincial Office of the Non-Formal Education (PNFE) Department of the Ministry of Education, Youth and Sports (MoEYS). The CLC was specifically entrusted with the task of providing logistical support, provision of training materials and making sure that supplies were available as needed.

An agricultural trainer specialising in agricultural technology and animal husbandry was hired to design and develop a teaching manual that could also be used flexibly as a training manual. It was anticipated that among the 30 trainees, about ten would be selected and further trained to become trainers for similar groups of girls and young women from nearby villages.

• *Methodological approach*

An active demonstration, group learning and support approach was adopted by the project. The trainees were divided into small groups of five to six members. Each group was assigned to cooperate and work together in providing care and maintenance in the breeding of chicken and pigs. A scheme was also developed so that they would be able to earn from the group enterprise by selling the offspring of successfully bred animals.

Past experience on literacy training provided at the same CLC had shown that girls from very poor families often have difficulties attending the courses regularly or completing them. Various ways of attracting these vulnerable groups to the training programme and retaining them were explored. For example, daily rice incentives were provided to the girls and their families as an incentive for parents to allow their daughters to participate in the skills training. Each trainee received one kilo of rice daily, dependent on actual attendance in class. In addition, bicycles were

loaned to those trainees living far from the CLC. Both initiatives significantly raised the trainees' level of interest in the course and helped them actually complete it. Finally, project staff visited the families of those trainees who were absent on a regular basis. These visits proved critical in convincing the young girls parents to let them continue and complete the training course.

• *Impact*

During the monitoring team's visit, the girls were especially enthusiastic about the hands-on approach used to help them try out different agricultural technologies. They stated that practising the technologies in a learning setting with close guidance and supervision from the trainers had helped to build their confidence.

Before attending the training course, many of the girls had felt powerless about ever being able to emerge from their impoverished conditions. Attitudes towards advancement and empowerment took a positive turn when they started attending the course and they were hopeful that their newly-learnt skills would enhance their income-earning power which, in turn, would enhance their living conditions and status in their family and community.

The training methodology not only enabled the trainees to learn to work cooperatively together and manage a small agricultural enterprise, but planted the roots of the cooperative principle and generated the growth of a vital support network which could continue in the post-training period.

As in Prei village, another interesting impact of the project was the growing interest of out-of-school girls and young women in surrounding communities in attending similar training courses. Seeing the positive outcomes of the project, people around Chamcar Bei village became convinced that the project could work successfully in their communities as well.

Trainees have clearly improved their living conditions through self-employment and the creation of a self-help group network. Three of the CLCs have been empowered to take on an important role as demonstration places for the appropriate agriculture-related technology field. The activities on animal raising and sericulture are continuing with the objective that the two CLCs will be able to sustain themselves.

• *Sustainability measures*

An important sustainability measure adopted by the project is the fact that two female members of the CLC committee are required to attend the course and participate in its management. This is in anticipation of the CLC's need to build its capacity to deliver and manage similar training programmes in the future. The women's experiences in attending the course are deemed helpful for this purpose.

IV.2 Indonesia

IV.2.1 Location of the pilot projects

In Indonesia, the project was comprised of a series of pilot activities conducted in three communities – two in Lombok (in West Nusa Tenggara, just next to Bali) and one in Karawang (West Java).

Lombok is desperately poor compared to other regions of Indonesia. It faces wide gender disparity in education and general economic and social development. One technical school was identified in Mataram (the capital of the province), and another in Kuripan (previously named Kediri, a rural area outside of Mataram). Karawang, the second area identified for the first phase of the pilot project, is an impoverished rural area with a small number of industries established during the financial boom of the 1990s.

IV.2.2 Needs Assessment

The Centre for Societal and Development Studies (CSDS) of Atma Jaya Catholic University commissioned an assessment study to provide information on the extent of gender disparities in scientific, technical and vocational education in Indonesia. The information fed into developing the technical and vocational skills training programme for girls in the pilot project areas.

Specifically, the objectives of the need assessment study were defined as follows:

• To clarify the relationship between poverty alleviation and the role of education for the empowerment of girls and women;

• To provide an overview of existing practices/policies in Indonesia, especially good practices that are gender responsive;

• To understand the role of Scientific, Technical and Vocational Education for Girls in the context of achieving "Education for All", as well as within the wider context of development objectives.

The need assessment was carried out over a three-month period. Most of the analysis was based on secondary data gathered from the Central Bureau of Statistics, the Indonesian Institute of Sciences (LIPI), the State Ministry of

Research and Technology and the schools participating in the pilot project.

Field visits to each school took place within the first month. During these visits, local researchers held separate focus group discussions with teachers and students, parents and out-of-school children, as well as community leaders. Contacts with relevant actors were made possible with the assistance of local NGO Entrepreneurial Cooperative Annisa and the governmental CLC Dahlia in Lombok.

A Technical Workshop for Education Planners and Teachers was held during 21-23 October 2002 in Malang, East Java. The Workshop aimed to familiarise government and school partners with the issues to be dealt with by the project, such as poverty reduction, gender-sensitive and inclusive education, girls' access to education and training and job opportunities for girls in technology-related fields. Sixteen participants from each of the three pilot districts were invited, respectively consisting of one from the District level Regional Development Planning Agency, one principal, two teachers from the pilot school, and one or two representatives of the local NGO. During the Workshop each pilot school identified the skills to be taught and developed frameworks for the training programmes. In this first phase, the senior secondary technical school SMKN 3 Mataram provided education and training programmes on home appliance reparation and wooden furniture production; SMKN 1 Kuripan provided programmes on sweet corn and broiler poultry chicken production; and SMKN 1 Karawang provided electric installation and automobile reparation technical programmes.

IV.2.3 Pilot training programmes

A. Education and Training Programmes on Home Appliances Reparation and Wooden Furniture Production: SMKN 3 Mataram

• *Target group*

The first phase of the education and training programme at the senior secondary technical school SMKN 3 Mataram was provided for 20 out-of-school girls.

• *Implementation Arrangements*

The school enhanced the awareness of the surrounding communities and parents on the importance of education for girls through distribution of brochures via the heads of the villages and sub-districts. In addition, the school was assisted by CLC Dahlia in the initial socialisation and recruitment process. The modules were developed with the assistance of experts in the respective fields. The essential modules were delivered by teachers normally teaching the essential subjects in the formal school. The adaptive materials on gender equity, reproductive health and entrepreneurial skills were delivered by CLC Dahlia in one day. Participation increased from 90% to 94% after the principal changed the day of providing the participants with transport costs from Tuesday to Saturday. Entrepreneurial Cooperative Annisa contributed during the first phase by assisting in channelling/marketing the furniture produced to the customers.

• *Methodological Approach*

The teachers created an open and more relaxed learning environment and explained the essential materials in a user-friendly way.

• *Impact*

Though CLC Dahlia was only involved in the initial socialisation and recruitment process, teaching out-of-school girls during the first phase has greatly increased the number of female students entering the school's formal education programme. From only 17 new female enrolments in 2003 (out of a total number of

700 new entrants), last year there were 58 new female entrants (out of a total number of 700 new entrants). As a result, there are currently 75 female students in grades one, two and three out of 1,676 students.

In the initial socialisation of the first phase of the programme, many parents and community leaders admitted that they preferred their girl children to be trained in "girl-related" programmes such as sewing, cooking, hair dressing, etc. However, by the end of the first phase of the programme, not only had the parents' interest in sending their female children to a technical school increased, but the socialisation of the project to parents of out-of-school girls was also more readily accepted.

• *Sustainability measures*

In addition to funds received from UNESCO, for this first phase the school was also provided with Rp. 20.000.000 (approximately US$2,174) from the local Department of Education via the Mayor.

B. Education and Training Programmes on Sweet Corn and Broiler Poultry Chicken Production: SMKN 1 Kuripan

• *Target Group*

The first phase of the education and training programme at the senior secondary vocational school SMKN 1 Kuripan was provided for 20 out-of-school girls.

• *Implementation Arrangements*

One positive aspect of SMKN 1 Kuripan's programme was its collaboration with the local NGO Entrepreneurial Cooperative Annisa who has had extensive experience in working on

women's rights and empowerment. Annisa assisted the school in socialising the programme to the surrounding communities, selecting the participants, preparing the user-friendly modules, teaching several of the modules according to their expertise, providing guidance and lending seed funding for small-scale entrepreneurial post-training activities. In socialising the programme, the school held several meetings with principals from other schools, local government, the local Department of Education, NGOs and community figures to attain wider support. Local industries also took part in developing related modules and in delivering the modules on marketing prospects for their production in Lombok.

• *Methodological Approach*

A positive and enabling environment was encouraged through: (1) a participatory approach and an open, informal setting for the learning environment where teachers and learners feel free to ask questions and actively make suggestions; (2) participants were relatively experienced in community activities, making adjustments to their new situations and routines easier; (3) the programme was primarily designed to develop small-scale entrepreneurial skills which motivated the girls to do their best.

• *Impact*

Interviews and discussions with the teachers and the girls revealed that the teaching-learning approach made learning easy for the girls despite their educational disadvantages.

An important outcome of the project was the observed positive change in enhanced gender-sensitivity felt in the school environment, particularly from the principal, teachers and staff directly involved in the pilot project.

Towards the end of the programme (June 2003), it was noted that the attendance was more than 90% (92% for sweet corn production and 96% for broiler chicken poultry production). This was viewed as a strong indication of the girls' commitment to the education and training programme.

• *Sustainability measures*

In addition to the funds received from UNESCO, for this first phase the school was also provided with Rp. 20.000.000 (approximately US$2,174) from the local Department of Education via the Mayor. Moreover, SMKN 1 Kuri-

pan also contributed Rp. 3.000.000 (US$326) for the project, and received a loan of Rp. 1.000.000 (US$109) for each participant from Annisa as seed money to develop small-scale businesses run by two to three participants as their post-training activity.

C. Education and Training Programmes on the Operation and Reparation of Electronic Home Appliances and Automotive Vehicles: SMKN 1 Karawang

• Target Group

Approximately 32 out-of-school girls registered to participate in this training course. Thirty girls were able to complete the course, while the remaining two had to leave after the first day due to family problems.

• Implementation Arrangements

The senior secondary technical school SMKN 1 Karawang conducted education and training programmes on skills related to the operation and reparation of electronic home appliances and automotive vehicles.

The school socialised the programme by distributing brochures to the heads of the administrative unit at the smallest and next-to-smallest level of the district, as well as to the head of the sub-district. In addition, the school also broadcast details of the programme through two private radio stations in Karawang.

The six-month programme set out to impart the following competencies:

- Technical electronic programme imparting knowledge on basic electronics, and skills to operate computer and repair electronic home appliances;
- Automotive programme imparting skills to maintain and repair petrol-driven motorcycles and electric cars, as well as driving skills.

Aside from the essential competencies, the school also provided elective materials on gender sensitivity and entrepreneurial skills. Materials on gender issues were routinely delivered every Friday by the NGO Corps of the Female Moslem Student Organisation as recommended by the Indonesian National Commission for UNESCO. In addition, the participants attended a two-day training course outside the school on gender sensitivity in order to enhance their awareness.

• Methodological approach

Teaching-learning methods were adapted to the learning abilities and needs of the trainees. The school did this by simplifying and adjusting the regular formal school curricula and materials to suit the six-month programme.

The teachers explained that the programmes on operating computers and driving skills were included to enhance the girls' interest in, and enthusiasm for, participating in the programme.

• Impact

The senior secondary technical school has been mobilised to implement a special short-term education and training programme for out-of-school girls, using the school's teaching staff, resources and facilities.

• Sustainability Measures

As a result of the education and training programmes, the out-of-school girls were provided with useful skills that would help them find employment. In addition, their deeper awareness of gender equity and gender sensitivity is undoubtedly a valuable asset for their personal and professional lives.

IV.3 Nepal

IV.3.1 Location of the pilot projects

With the technical support of the NGO "Skill & Know-how Imparted at Local Level" (SKILL-Nepal) and under the supervision of UNESCO/Kathmandu, two training courses were implemented:

- Traditional Dress Making and Sewing Machine Repair Training
- Computer Operation, Repair and Maintenance Training

The first took place in the Rasuwa district in the Bungmati Zone, in close collaboration with the Dhunche CLC. Rasuwa District is a remote, hilly and mountainous area located in the Bungmati Zone of the Central Development Region of Nepal. The main town in the district is Dhunche, about 118 kilometres north of the capital city, Kathmandu (about eight and a half hours by bus from Kathmandu). The road to Dunche deteriorates further as one continues.

The second training course was held in the Lalit-pur district, in collaboration with the Bungmati CLC. Here, the literacy rate is around 40.9%, with men having a significantly higher literacy rate of 49.4% compared to women at 32.5%. The low literacy rate of women can be attributed to various factors: less importance is given to girls' education; there is greater demand for female labour at home; social norms and values restrict girls' continued access to education; and the poverty in which families live.

Following the success of the pilot project, UNESCO initiated another project entitled Technology-based Vocational Training for Marginalized Girls (TVT-G). In July 2004, two training courses on wood carving and advanced electronics for 25 girls in the Bhaktapur district were conducted by SKILL-Nepal in close collaboration with the Khwopa Adarsha CLC, Bhaktapur, and with financial support from UNESCO.

As a project partner, the Council for Technical Education and Vocational Training (CTEVT) was responsible for the organisation of the national workshop on "Policy Recommendations for Scientific Technical and Vocational Education for Girls" and skill testing of the trainees. Planners and managers (educational planners, school teachers, technical resource persons, trainers, researchers) at district as well as central level have been involved in the process of project implementation and have developed their capacity in this sub-sector. Experiences and lessons the project have been shared and a policy recommendation for the STVE for Girls has been prepared.

IV.3.2 Needs assessment

The analysis of community needs was undertaken together with the partner CLCs, community leaders, parents and the target group to guide the project in developing the training programme. From the results of the surveys, skills training priorities were identified as well as changes needed at policy level.

In the course of identifying the trades, the following criteria set by UNESCO were defined:

- The project must be technology-based vocational training;
- The target group must be out-of-school marginalized girls and adult women;
- The trades must be women friendly;
- There must be potential for employment after training.

In the semi-urban setting of Kathmandu valley, it was decided that the training would focus on practical IT-skills related to computer operation, repair and maintenance, encouraging girls to find job opportunities in a male-dominated employment sector. In more rural settings, the training would focus on imparting skills related to traditional dress making and sewing machine repair training.

UNESCO, for its part, identified Sipadol, Tathali, Chitapol VDC and the Municipality of Bhaktapur district as the training sites.

In order to ensure that the training was in fact meeting needs and learning objectives, SKILL-Nepal and the national researcher were also contracted to carry out a mid-term evaluation of the project activities. More specifically, the main objectives of the mid-term evaluation were to:

- Ensure that the project activities are carried out on schedule;
- Determine that project input was being efficiently and effectively utilised in terms of fulfilling the project objectives;
- Ensure that implementation and management of the project is well-organised;
- Identify factors affecting the implementation of the project and their solutions;
- Provide recommendations for corrective action;
- Draw lessons from the project experience for future projects.

IV.3.3 Pilot training programmes

A. Traditional Dress Making and Sewing Machine Repair Training: Dhunche, Rasuwa[7]

- *Target group*

Nine adolescent girls aged between 14 and 21 were selected for participation in the four-month training course.

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7. Covering CLC Dhunche, Bharkhu and Haku in the central region of the country.

• *Implementation arrangements*

SKILL-Nepal, in consultation with the partner-CLCs, developed a programme of training in marketable skills. The NGO was also involved in selecting the trainees and ensuring that the training programme is gender-sensitive. The training curriculum and content were prepared and delivered by SKILL-Nepal for a period of four months.

The national researcher, under the supervision of UNESCO/Kathmandu, was also involved in community analysis and Training Needs Assessment (TNA), process monitoring, technical support to partners, policy review and evaluation of the project.

• *Methodological approach*

Instructional methods included demonstration, guided practice, independent practice, illustrated lecture etc.

During the project's implementation, a monitoring exercise was organised at each site. The tools used for gathering information for the monitoring exercise included: personal interviews, questionnaires, observations, documentary reading (attendance, pattern sheets, forms, trainees notes etc) and informal conversations with the CLC staff, trainers and trainees and SKILL-Nepal. An open-ended questionnaire for interview was developed on the basis of the indicators.

Indicators included: the level of responsibility of CLC and SKILL-Nepal in the training programme; training objectives; the selection process; the number of participants at the time of enrolment and the regularity of their attendance; the educational level of the participants; the number of trainers provided and the regularity of their attendance; training tools/equipment/materials; evidence of learning achievement; delivery methods; and physical facilities.

The monitoring exercise was carried out in three steps. First, an interview was conducted with the staff of Khwopa CLC, Bhaktapur. Secondly, interviews were conducted with the trainers and trainees of both Woodcarving and Advanced Electronics (Colour TV Repair & Maintenance) at the training sites. Documents such as attendance records, pattern sheets, forms, trainees' notes were studied and training activities were also observed. Thirdly, an interview was held with Mr. Mahesh Hada, Director of SKILL–Nepal.

• *Impact*

At the end of the training period, a focus group discussion with the trainees revealed that they were generally satisfied with the delivery and outcomes of the training. They said that this was mainly thanks to the trainers who are highly skilled, hardworking, and supportive to the learners.

The trainees showed increased self-confidence and were enthusiastic at the prospect of performing their skills outside the training environment, if given the opportunity to continue practising. In fact, they had already begun to receive sewing orders from clients and were able to begin improving their livelihoods. They organised themselves into four groups in Dhunche, the Haku Rasuwa district and Kathmandu. However, they acknowledged that they still need to improve their sewing skills as sometimes the clients return and ask them to make changes and improvements as the sewing job was not done well.

• *Sustainability measures*

SKILL-Nepal helped the trainees develop a sustainability plan for self-employment for the post-training period. However, the trainees expressed concerns about the sustainability of their tailoring business and the sewing machine repair shop they had just established. They indicated that the self-confidence and sense of independence that they gained from the training course could only be sustained with additional technical support and access to financial assistance. On the other hand, they are hopeful of being able to expand their small business by learning sewing skills related to the furniture-making industry. The support provided by the market survey outside Rasuwa will help to expand the business.

B. Computer Operation, Repair and Maintenance Training: Bungmati, Lalitpur district [8]

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8. *Covering CLCs in Khokana, the Bungmati Development Committees in the Lalitpur dirstrict and Ward 18 of Kathmandu Metropolitan)*

• Target group

Sixteen girls were selected to participate in the Computer Operation, Repair and Maintenance training course in Bungmati. They were recruited through the three neighbouring CLCs of Khokkana, Tamsipakha-Ward 18 and Bungmati. Most of the girls had dropped out from school before reaching grade nine.

• Implementation arrangements

The training curriculum and content were prepared and delivered by SKILL-Nepal for a period of ten months.

• Methodological approach

Emphasis on teacher-learner interaction. Given the low literacy levels of the participants, teaching approaches were adapted to suit learning capacities[9].

• Impact

Despite different constraints faced by the training providers, the trainees found the quality of the course to be highly satisfactory, including the teacher-learner interaction. And in spite of concerns about the difficulties that they faced in understanding the technical concepts of the course (given that the national standard minimum education requirement for such course is grade nine), they appreciated the efforts made the training provider, SKILL-Nepal, to adjust the teaching methods to suit their learning capacities.

With the guidance of SKILL-Nepal and support from the three participating CLCs, it was decided that the trainees would collectively establish a computer repair and maintenance workshop using a cooperative model.

• Sustainability measures

The training course was originally planned to be implemented for a period of seven months. However, due to frequent political disruptions, especially in Kathmandu, the course needed to be extended to ten months. Moreover, adjustments and revisions were made to the modules (particularly those related to computer hardware maintenance) in the midst of implemen-

tation - primarily to address the target group's learning difficulties. This caused further delays in the training schedule.

Nevertheless, SKILL-Nepal forged ahead with the development of a sustainability plan towards self-employment in collaboration with the CLCs and the trainees and made a commitment to undertake post-training follow-up activities.

A mechanism was also set up with the cooperation of the Council for Technical Education and Vocational Training (CTEVT) to provide skills testing for the training programme on computer operation, repair and maintenance. Skills testing has thus been carried out with the graduates of the computer training course, and all 16 trainees successfully passed the examination for "Junior Computer Hardware Technician Level 1", equivalent to grade ten level.

C. Woodcarving: Bhaktapur

• Target group

Fourteen girls and women were selected on the basis of interview to take part in the woodcarving training course. Since these girls and women have very low academic levels (only 50% reached grade eight), they were not required to pass written examinations.

• Implementation arrangements

The training was initiated in July 2004 for a period of four months in close collaboration with the Khwopa Adarsha CLC, Bhaktapur, with financial support from UNESCO, Kathmandu, and technical support from SKILL-Nepal, Jawlakhel, Lalitpur.

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9. The literacy rate is around 40.9%, with man having significantly higer literacy rate of 49.4% compared to women at 32.5%. The low literacy rate of women can be attributed to various factors: less importance is given to girls' education; there is greater demand for female labour at home; social norms and valus restrict girls' continued access to education; the poverty families have to live in.

Monitoring visits took place once every two weeks and mid-term evaluation every month from SKILL-Nepal as well as an informal visit almost every week from the CLC at the training centre.

- *Methodological approach*

The training methodology was developed using tools found locally and techniques passed down through the generations. The two local trainers who were chosen to carry out the teaching had both learnt their skills through family apprenticeships. This knowledge of woodwork and familiarity with the local area proved invaluable to the learning process.

- *Impact*

According to SKILL-Nepal, the performance of wood carving training was better than anticipated. There were no drop-outs and the families were very supportive of their daughters taking part in an activity which was traditionally a male preserve. The regularity of the trainees in attending the classes was a strong indication of this.

The pace of the learning achievement was faster than expected. For example, it was anticipated that it might take 10 to 12 days for the trainees to learn one pattern in wood-carving, but they learned it in 6 to 8 days. It was considered that 75% of the trainees had learnt the skill very well while, of the rest, 25% were doing quite a good job.

The trainers praised the hard work, focus and commitment of the trainees, while the trainees themselves appreciated the hands-on approach adopted by the trainers.

Bhaktapur being a tourist centre, it is likely that the girls from the wood carving course will have opportunities to sell their skills through self-employment.

- *Sustainability measures*

The Sustainability Plan for Self-Employment included developing plans for further financial and technical support, a market survey related to the training courses and follow-up and skills upgrading. SKILL-Nepal will continue follow-up visits and will develop an advanced training course if the need arises, or when appropriate, six months after the completion of the first course.

A trainer offered to provide an opportunity for the girls to carry on practising their skills in his carpentry workshop and said that, if necessary, he could arrange for low remuneration on a piecemeal basis.

D. Advanced Electronics (Colour TV Repair and Maintenance): Bhaktapur

- *Target group*

There are 12 girls and women in advanced electronics, selected on the basis of a written examination and interview.

- *Implementation arrangements*

The training was initiated in July 2004 in close collaboration with the Khwopa Adarsha CLC, Bhaktapur, with financial support from UNESCO, Kathmandu, and technical support from SKILL-Nepal, Jawlakhel, Lalitpur.

Monitoring visits were undertaken once every two weeks with a mid-term evaluation every month from SKILL-Nepal, as well as informal weekly visits from CLC staff. One staff member from SKILL-Nepal is always there at the training site as an electronics trainer to supervise both training courses. Besides this, visits and calls from important local personalities provided encouragement to the participants and trainers.

Mid-term evaluations were carried out in late October and early November 2004.

• Methodological approach

Unlike in the wood carving training programme, priority was given to girls who had at least passed grade eight because of the nature and demands of the training. The participants needed to be able to understand figures and diagrams, as well as carry out basic calculations.

• Impact

At the time of the mid-term evaluation in late October and early November, the participants had completed radio, tape-recorder and black & white TV, and the theory class on colour TV and VCP were on-going. Teaching of the skills required for repairing and maintaining colour TV had not yet been initiated.

Even though the trainees had no previous knowledge of the skills needed to repair and maintain the adaptor, volt guard, multi-vibrator, FM switch in the radio etc. This clearly indicates the transition has taken place from traditional female-oriented courses such as tailoring, dressmaking, and cooking to modern technological and scientific skills.

• Sustainability measures

The Sustainability Plan for Self-Employment included developing plans for further financial and technical support, a market survey related to the training courses, follow-up and skills upgrading. SKILL-Nepal will continue follow-up visits and will develop an advanced training course if the need arises, or when appropriate, six months after the completion of the first training course.

The second measure included setting up a mechanism with the cooperation of the Council for Technical Education and Vocational Training (CTEVT) to provide skills testing for the training programme on computer operation, repair and maintenance. Skills testing has thus been carried out with the graduates of the computer training course and interestingly all 16 trainees successfully passed the examination for "Junior Computer Hardware Technician Level –1" which is equivalent to grade ten level.

Part V.

Lessons learned

Part V. Lessons learned

V.1 Institutional milieu

In the project countries, the involvement and active participation of key institutional stakeholders at national level has been achieved by organising regular information and task force meetings and building linkages between national programmes and prioritised gender-inclusive and pro-poor technology-based vocational training.

The implementation of the project and the whole institutional support device for marginalized young women in the project countries has nevertheless revealed matters that require further attention:

- The care taken to assess the knowledge and the real needs and preoccupations of girls and women in their communities contributed significantly to programme design, acceptance and implementation, but knowledge of markets, the business cycle and processes needs to be deepened to ensure that the activities have a sustained impact on local community welfare and economic development.

- On a related theme, the project probably suffers from a lack of tie-ins with broader policy measures and mentoring actions to support micro-enterprise for marginalized girls at the regional and local levels in the underprivileged surroundings.

- There is no follow-up to monitor the results of actions once the training period is over and the development of the needs and profiles of trainees.

V.2 Implementation arrangements

A key strength of the "Technology-based Vocational Training for Girls" project has been the close involvement of different stakeholders (ranging from UNESCO at the multilateral level to local NGOs within the communities) in the various stages of planning, consultation, implementation, process monitoring and evaluation systems. The project has also been characterised by good coordination among UNESCO Field Offices, CLCs and local NGOs.

The projects themselves have acted as a nexus for coordinating the activities of a range of partners and services. In effect, services for young girls in the target communities have become more 'joined-up'. Different partners understand the goals and operations of each other's agencies more clearly, allowing for more seamless and holistic methods of service provision, regardless of whether or not a vocational school is implementing a project.

Working with local NGOs with knowledge of local peoples and their livelihood systems also proved to be one of the linchpins of the project's acceptance and impact in the various target communities. For example, in Nepal, the involvement of SKILL-Nepal greatly facilitated the early planning stages and the selection of trainees. Regular visits to the training site by representatives of SKILL-Nepal helped ensure that the project was accepted by the community, managed smoothly and monitored appropriately.

The project also underscored the role that can be played by CLCs in poverty reduction which often already address the educational, skills training and psycho-social needs of the most vulnerable girls in their communities. In all three countries, the CLCs were fully mobilised and their participation was effective in obtaining the support of community leaders and households and keeping the trainees in training.

When the CLCs were used as the actual location for training workshops, the step from literacy teaching and the focus on family welfare and health related issues –their traditional areas of focus– to vocational skills training proved to be a short one with the appropriate support from local NGOs and institutional partners. In the case of Cambodia, a promising sign was that some of the trainees have gone on to become trainers themselves to enable the project to expand through CLCs. The question remains, however, of how to build the capacity of these centres to plan and sustain such activities in the long term.

In Indonesia, technical and vocational schools provided facilities and trainers while a local NGO working for women at grassroots level contributed by identifying the trainees, advocating the value of such training for marginalized girls in their communities and linking the training with a micro-credit scheme. The two parties worked together to adapt the existing curriculum and teaching materials to cater for the needs of the target group.

The experiences in the different countries demonstrates that success depends very much on the openness and commitment of the participating training providers and venues. In the sites where local implementation partnerships had been built and nurtured, the project not only had an impact on the trainees but also on teachers in that they opened their eyes to innovation in teaching approaches. It also enabled training administrators to take leadership in broadening their institution's missions by contributing to the development of needy communities.

One obvious omission, it was noticed, was the lack of participation by local industries and business partners in project planning and delivery.

V.3 Community analysis

The strategy of making research an integral part of the project is worth noting. Research was necessary to understand the complexities of local situations and the circumstances of the target group, and gave better ideas on how to adjust strategies and activities to local situations. The analysis also provided a "baseline" against which to measure project outcomes, impact and future development.

The choice of which skills to focus on in different communities raised a number of questions about what types of vocational training are relevant for different target groups in specific contexts. The emphasis was placed on choosing technology-based skills that are locally appropriate, productive, marketable and would open up opportunities for generating sustainable livelihoods or improving employment prospects. In this way, the skills training would contribute to empowering the target group by providing alternative futures. One of the main issues to emerge was the need to diversify the local economy by encouraging different types of skills training.

Another issue to emerge was that, when traditionally male-dominated skills were selected, the idea was first met with resistance, especially from the trainees' parents, although this barrier was overcome once the feasibility and usefulness of such training was proven. But, more interestingly, a key finding is that skills traditionally seen as a female domain are no less empowering. This was demonstrated at the silk weaving training site in Prei village, Cambodia, which focused on the revitalisation of traditional skills. The trainees became aware of the importance of technological progress and quality control in production methods, as well as business concepts related to market identification

and continuous improvement. Familiarity with the language of enterprise not only gave deeper meaning to the activities in which they were engaged, but also enabled them to describe, monitor, and assess their learning against wider economic outcomes.

An interesting feature to note is that even though the pilot activities in each country followed common overall strategies, they were adapted to local contexts. As a result, each country came up with distinct innovative approaches and had interesting lessons to share: in Indonesia, close collaboration between formal vocational schools and NGOs proved to be successful in accommodating poor out-of-school girls, while the project in Nepal attempted to link the project with the national skills testing scheme. There was a lot to learn from the Cambodian experience too, which faced various difficulties in launching the training courses. Since the project targeted illiterate girls in extremely poor communities, the pilot activities were able to contribute to increasing awareness of their needs as well as providing concrete proposals in the following areas: improved collaboration between formal and non-formal education initiatives; better integration of gender-sensitive training at all levels; the promotion of girls' access to technology-based vocational training; and the promotion of participatory teaching methods.

V.4 Changes in attitudes and behaviours of the trainees, their families and the community

As suggested above, a point of resistance to look out for when planning future interventions is the negative perceptions or attitudes of parents and certain community members towards the training of girls in employment-related skills, particularly when the skills' domain has traditionally been a male-dominated preserve.

In Indonesia, since there were no measures undertaken to change such attitudes, this may have been the reason why three girls dropped out at an early stage in the project.

During the focus group interviews, parents and community/religious leaders in pilot sites in the rural areas stated that they were initially annoyed to see girls with science and technology equipment. They could not see the benefits of their daughters' participation, preferring to have them acquire skills in traditional female work areas such as sewing/tailoring and cooking. In urban areas, the parents were more willing to allow their daughters to participate in electronic skills training activities since many electronic industries are

willing to employ the girls (e.g. in Karawang). Furthermore, vocational education is perceived as a poor substitute for higher education, appropriate for academically weak students who are not accepted in general study programmes.

Fortunately, since the links between the learning programme and its immediate application in terms of developing sustainable livelihoods were quickly apparent, most of the families were soon convinced of the project's worth. In fact, the project staff reported shifts in community attitudes, with communities becoming more supportive of young people in general. This helped create a 'culture of care' for young people who may otherwise have become further marginalized and excluded.

This immediate relevance also proved to be a motivating factor for the girls themselves in attending and staying in the project. They were able to see the purpose of their training, the link between routine practice and applied work. Evidence from various pilot sites suggests that participation has often led to greater self-confidence and optimism about what the future holds.

And because the trainees were gaining a tangible set of skills and competencies, they themselves changed their outlook on the importance of education and skills training and their perception of what is possible in their future. The focus groups following some of the pilot projects revealed increased motivation, engagement and self-esteem in preparation for training pathways and beyond. Similarly, the pilot projects helped valorise the girls' contribution to the well-being of their families and the community.

The provision of incentives

Given the girls' economic situation and their daily constraints, it was observed that attendance increased when incentives were offered, e.g.: transport costs between home and school (in Cambodia and in Indonesia, the training sites provided weekly transport allowances); arrangements to accommodate married women, especially those with young children; a flexible time schedule for those who have household and other obligations; meals for trainees etc. Nevertheless, there was a debate among some local partners about whether such incentives created dependency.

In addition, programmes which offer childcare are often more successful as an alternative to the common practice of the eldest daughter remaining at home to look after the house and her siblings (Asian Development Bank, 1998). For younger women (15 to 25 years of age), long-

term training is often found to be more suitable as they are less likely to have dependents. They also tend to be quite interested in educational opportunities and to learn additional skills in order to remain competitive in the labour market for a longer period. This age group is also more likely to migrate to urban areas and may need skills training that is sufficiently broad-based.

V.5 Length and timing of training

At different training sites, particularly where the trainees were learning computer-related or mechanical technologies, it became apparent that the planning had underestimated the time needed to complete the training course successfully. This was because many of the trainees experienced difficulties in grasping the theory part of the subject and often had no prior knowledge of the skills being taught. Furthermore, many of the trainees had very weak literacy skills and the different paces at which people are able to absorb information and learn skills had not been accounted for.

In Nepal, for example, the trainers of the wood carving course expressed doubts about whether the participants would be able to put all seven patterns together on a wooden window frame with the required quality levels by the proposed completion date. Unfortunately, with the training course already one month longer than originally intended, SKILL-Nepal was unable to extend the training period to allow trainees to master their skills fully. Similarly, it was also anticipated that four months for the training course in Advanced Electronics (Colour TV Repair & Maintenance) would not be sufficient for the trainees to learn all the required skills.

The issue of time turned out to be important in the success for skills training. The timing must allow the trainees to fulfil their family and household responsibilities.

V.6 Methodology

One common problem did appear across project sites. Low levels of literacy, combined with poverty, were major obstacles for the girls.

Instructional materials

In Indonesia (SMKN 1 Karawang and SMKN 3 Mataram), it was noticed that the modules were heavy with theoretical information and concepts rather than practice and application of technical skills, even though the course officially al-

located 75% of its total duration (21 weeks) to this end. The discussion on gender issues and concepts could also sometimes be too broad and unclear, resulting in confusion and unresolved debates and perhaps even jeopardising the empowerment goals of the project.

The monitoring exercise also revealed that the language, format and layout of the books resembled the approach used in formal schooling. These should have been adapted more carefully to take into account the learning needs and literacy levels of the trainees.

Access to and quality of tools

For basic courses, the provision of tools and equipment was sufficient for each trainee and was seen to enhance learning within the proposed timeframe. In certain cases, the participants were even allowed to keep the tools so that they could practise their skills at home or use them for self-employment. But for more advanced and complicated skills such as maintaining computers, repairing cassette players, radios and TVs, the equipment was often shared between three to four trainees at a time and it was suggested at different project sites that this had slowed down the pace of the course.

A further constraint was that some of the tools and equipment (for example, those used for the wood carving course in Nepal) were not up to the standard needed for quality wood carving[10].

V.7 Learning environment

From the experience of Indonesia, it was suggested that vocational schools, when involved as training providers, needed to adjust their vocational curriculum and teaching approach significantly to make the learning environment more welcoming and inclusive, and gender-sensitivity was ingrained in the attitudes and behaviour patterns of all those who come into contact with the target group. It was obvious that some of the vocational schools and their facilitators were unfamiliar with non-formal teaching and training methodologies and did not know how to interact appropriately with the trainees as a group. Above all, the training curriculum should not be developed before the needs assessment and project socialisation are undertaken.

The planners and facilitators in each country also need to keep in mind that the physical training environment should be appropriate and conducive for learning because it has an important impact on motivating the girls to carry on participating in the training project. In Indonesia, one complaint was that the vocational schools chosen as training sites were often dirty and male-dominated. There were few women's rest rooms. In Nepal, the physical environment suffered from lack of space for the trainees to move when working with tools and equipment, preventing them from practising their skills comfortably. The shortage or absence of safe drinking water was also mentioned.

Another weakness was that the training courses were not flexible enough to accommodate young married women who were pregnant or had young children. There was no provision for childcare in the training venue.

V.8 Budget and project sustainability

Many of the pilot projects in this report reinforce the claim that a good-quality vocational training activity needs commitment, creativity and energy, but not necessarily a lot of money.

On an institutional level, the budget from UNESCO was seen to be an influential factor in achieving the positive results, even if considered inadequate to cover such things as enabling all trainees to have their own tools, equipment maintenance or post-training extension services and further support. For the moment, raising extra-budgetary funding from UNESCO remains a challenge and more efforts will be made during the current biennium to attract other donors.

The possibility of national governments contributing directly to the continuation and expansion of the programme should be explored. The project in Indonesia has succeeded in mobilising the government to replicate the model developed in the pilot activities in other schools in the framework of its recent policy to introduce out-reach programmes in formal technical and vocational schools, as well as its decentralisation policy. A new training cycle has already started in two of the schools that participated in the first phase, with adjustments made following the lessons learnt from past experience. During the second phase of this project, two new senior secondary technical vocational schools (SMKN 5 Mataram and SMKN 1 Keruak) have also joined the project with full financial assistance provided by

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10 *The tools and equipment were supplied from Bungmati, which is not a place reputed for manufacturing wood carving tools. If the tools were from Bhaktapur, they would be of good quality, because the manufacturers work with high standards, producing quality wood carving tools.*

the District/City level Department of Education and Sports and by the District/City level local Department of Education.

For the poorer countries like Cambodia and Nepal, ensuring the sustainability of such a project has yet to be worked out, although it has so far contributed to sensitising ministry officials to the relevant issues by involving them in every phase of project implementation.

There are, nevertheless, plans to extend the training activities in Nepal. A "Sustainability Plan for Self-Employment" was elaborated at each training site to ensure long-term outcomes. This exercise included developing plans for further financial and technical support, market surveys related to the courses, follow-up and skills upgrading. SKILL-Nepal will continue follow-up visits and will develop an advanced training course if the need arises, or when appropriate, six months after the completion of the first training course. Two more workshops were launched –Training in Wood Carving and Electrical Training– in collaboration with the National Centre for Technical and Vocational Training. In addition, a needs assessment was undertaken proposing the introduction of additional training courses on "Light vehicle driving and maintenance", as well as "Basic welding".

In Cambodia, CLCs have been empowered to take on an important role as demonstration sites for the use of appropriate technologies in agriculture and related fields. The activities on animal raising and sericulture are continuing, with the objective that the two CLCs will become self-sustaining.

However, the question of funding to sustain the training activities still needs to be explored. At local level, project initiators would need to determine which organisations have similar (but not necessarily the same) goals as theirs and identify ways of working together. In the case of Nepal, SKILL-Nepal and the CLC decided to hold meetings with parents and community members to look for possible employment opportunities.

V.9 Post-training guidance and counselling

Follow-up models are being implemented in Cambodia and Nepal, including the establishment of short-term apprenticeships. Graduates of skills training programmes are placed as interns or apprentices in companies or industries to practise and further upgrade their newfound skills. This post-training support helps in building the trainees' confidence in practising their skills and in finding employment.

Peer support has proved to be especially helpful for young women. The regular meetings and exchanges enhance their self-confidence, helping them continue their employment or self-employment/business, and providing opportunities to learn from each other's work experiences.

However, the creation of a regular, on-going guidance and counselling mechanism is still needed. In Nepal, the girls taking part in the computer training course stated that they were not yet confident enough to practise their newly-acquired technical skills independently and may need follow-up or regular backstopping support from a computer hardware expert for a further six months. This was especially critical as they were about to establish and run their own computer business. At all sites, there was a confirmed absence of supporting training to nurture confidence and build marketing, decision-making and entrepreneurial skills. More follow-up was needed on mobilising resources and creating and managing the new enterprise.

Some of the CLCs expressed an interest in acting as a vehicle for seed money to enable the creation of micro-enterprises by girls who have participated in the training course and even to become shareholders in cooperatives. The possibility of increasing the availability of micro-credit for those trainees wishing to work as a cooperative needs to be further explored, as does more institutionalised efforts to assist in placing the trainees in the job market.

Part VI.

Recommendations

Drawing from the lessons learned during the implementation of the training activities at the pilot sites, and keeping in mind the overall objectives of the Technology-based Vocational Training for Marginalized Girls project, this section offers a number of recommendations for countries wishing to develop a similar project framework, improving attention to gender equity in technical and vocational education and offering suggestions for policy formulations aimed at addressing the training and employment needs of disadvantaged and excluded out-of-school girls and young women.

Part VI.   Recommendations

VI.1 Policy considerations

VI.1.1 Extending the policy environment: the need to create linkages between grassroots level skills training projects and broader development frameworks

The contribution of skills-based education and training projects for women and girls in the poorest communities to broader poverty reduction targets and societal goals needs to be made much more explicit to benefit from broad-based support, and for the insertion of these projects into national and international development frameworks. It should be understood that this type of training activity is not only a means of relieving the pressure on the labour market. It can also give rise to new local clusters of economic activity and is critically important in preventing a whole range of societal problems that result from the marginalization of young people as well as resolving existing community welfare problems.

Already, at international and national levels, the Millennium Development Goals and the new Poverty Reduction Strategy Papers (PRSPs) locate education and skills training within an anti-poverty focus. The adoption of sector-wide approaches by several bilateral development agencies indicates their importance in resolving entrenched community social problems. Many agencies, such as the InterAmerican Bank and DANIDA have also made explicit the linkages between skills development and environmental protection.

The project could also learn from regional initiatives such as FAWE in Africa, which has built up capacity in mobilising for greater participation of girls in education and training initiatives. Through its FEMSA project, it has also developed methodologies for attracting girls to mathematics, scientific and technical disciplines.

At national level, one option suggested during the country evaluations was to establish a National Board for Technical and Vocational Education whose mandate would be to generate linkages between public and private institutions and NGOs to improve the relevance and efficiency of technical and vocational education courses, particularly with a view to tying in the gender and poverty reduction dimensions. Such an endeavour could draw on existing country policy guidelines, even those elaborated for other regions.

> Local, national and international development plans and strategies are key vehicles for local authorities and schools to take forward the project framework.
>
> For example:
> - National Development Strategies
> - National Poverty Reduction Strategy
> - Poverty Reduction Strategy Paper (PRSP)
> - Education and Training Policy
> - Technical Education and Training Policy
> - National Youth Policy Paper on Local Government Reform
> - National EFA Strategy
> - The National Employment Strategies
> - The regional alignments, ASEAN.

VI.1.2 Creating a favourable local economic context for the generation of sustainable livelihoods

Small enterprises launched by trainees must have the potential to survive beyond the critical start-up period. For those students who want be self-employed or consider entrepreneurship as a viable career option, education and training must therefore go hand in hand with creating favourable conditions at a local level for the generation of sustainable livelihoods among young people.

There is a great variety of location-specific and cultural factors which affect income generating possibilities and self-employment opportunities for different population groups. Technical and vocational education policies which fail to take account of such differences are less likely to be successful.

One of the first steps is to examine policies that do not specifically target youth entrepreneurship but may affect it, such as the administrative and legal procedures for business start-up, availability of finance from commercial banks, education and skills training, social protection, gender equality and business expansion support.

Local governments are in a unique position because they have an overview of what development strategies are being implemented in the locality and can create linkages across sectoral and administrative boundaries. They can also bring all stakeholders to the table to identify overlapping agendas and to open a space for creating joint courses of action.

Local governments and authorities need to be sensitised to the central role that skills-based training –particularly for girls in marginalized communities– can play in long-term local economic growth strategies, as well as in tackling urban and rural poverty.

VI.1.3 The need for more targeted research and consultations

Many of the pilot projects were successful because they were preceded by research on the learning needs and expectations of young girls and women, the opportunities already open to them and barriers to participation in different learning streams in the socio-economic contexts of their communities, as well as the skills needed to improve the well-being of the community.

Further research is still needed to inform planning, especially regarding the linkages between education, urban and rural migration patterns, health, livelihoods and community empowerment mechanisms.

Research is also needed to identify factors that support and inhibit the integration of marginalized girls and women into vocational education projects in different contexts. This would include an analysis of cultural trends in relationship to entrepreneurship and self-employment in different settings, the attitudes of key decision makers at different levels of government, teachers' assumptions and beliefs about entrepreneurship and its relationship to poverty reduction issues and the willingness of local businesses, NGOs and community organisations to support its integration into secondary schooling actively.

In countries where the informal economy is the main sector for income generation among young people, the major challenge is to mainstream the concerns of the informal sector into formal training policies and systems, to upgrade the practices of non-formal training providers, to document and develop training strategies for particular categories of workers outside the formal labour market –e.g. those who are difficult to reach such as home-based workers, workers in micro- and family-based enterprises, sea-

sonal workers in the construction industry– and to establish sustainable financing mechanisms to train the poor.

VI.1.4 The need to extend partnerships

The projects have already achieved a fair degree of success in involving formal and non-formal learning providers such as CLCs and NGOs. But future project initiators should also look into building strategic, multi-level partnerships at the local, provincial and national levels within the planning process.

Technical and vocational education systems need to explore ways in which they can piggy-back on broader initiatives in the development community to support learning in different settings. In less prosperous countries, a case for sustainable funding from the broader development community could be made when partners recognise the rationale for education projects that provide a 'preventive' service, reducing the likelihood that young people will fall into the poverty trap and require extensive remedial services later in life.

Multi-level partnerships also mean collaboration with a greater variety of providers. In many countries, governments are already beginning to forge genuine alliances with different partners and agencies offering comparative advantages in various aspects of education and training provision and development expertise. The closer engagement of a broad spectrum of national institutions, comprising employers and trade unions, Chambers of Industry and Commerce, public and private training institutions, universities and representatives of civil society is helping create greater coherency across traditional sectoral boundaries towards education and poverty reduction goals. In any case, economic and social or cultural development issues are now inter-related with such complexity that no single agency can make an impact on its own.

In terms of training provision, the capacity of the non-formal sector to play a greater role in preparing and ensuring access for girls from rural and poor families to vocational skills training must be further explored. Already in Cambodia, literacy and numeracy training are provided to young women so that they may qualify for technical training related to their livelihoods. It is therefore important to involve the non-formal sector in the process of policy formulation.

The local private sector also needs to be drawn into training provision and provided with a framework for its involvement. Local indus-

tries or businesses could serve as sponsors and providers of training, workspaces, funding, mentoring and other business services. This may require the creation of incentives to stimulate involvement.

In particular, women's business networks can be a pivotal force in shaping the policy direction of their countries by offering new perspectives on traditional policy patterns and reaping the benefits of new economic opportunities.

VI.1.5 The importance of communications and outreach

The international community and the private sector are already playing a critical role by generating awareness among the general public, government agencies and the non-profit and private sectors of the contributions and value of young people –and particularly the role of girls in their communities– in reducing poverty. National and regional authorities also run campaigns to create greater public awareness of specific methodologies and programmes for the teaching of gender-sensitive technical and vocational education through the distribution of reports, publications and media tools. Best practices and model projects are shared through conferences, audio-visual materials, publications, television programming, press articles, newsletters, Internet web sites and the creation of project-specific databases.

Communication projects play an essential role at local level in educating, informing and motivating young people to recognising the benefits of technology-based skills training and persuading poor parents and their daughters to participate in training courses. The direct involvement of girls and women in raising levels of family income and undertaking entrepreneurial activities may not be part of the culture and traditions of the community and, as the projects have shown, the elders may have misperceptions about what this actually means.

Educators and programme facilitators need to be able to explain core ideas and concepts to the community in their various forms, take the mystery away and help people visualise skills training towards sustainable livelihoods as a viable alternative. Depending on the context, mass media and folk media in popular formats such as music, serial dramas and variety shows can also be used to present messages that persuade and motivate young audiences to engage in activities towards self-empowerment. Presenting positive behaviour models –especially women from marginalized and minority groups–

with real-life stories to inspire is an important part of communications and outreach.

Another critical element is to raise awareness among local and national policymakers of the importance of dealing with issues facing young people in marginalized communities, gender sensitivity and the women's empowerment framework of the project. Functionaries in the education system and support institutions –be they government departments, development organisations or financial institutions– may not appreciate the potential role that girls can play.

Enhancing the gender awareness of the participating vocational schools/training providers will enable them to make the teaching-learning environment responsive to the special circumstances and learning needs of poor out-of school adolescent girls. Enhancing their awareness and understanding of the Convention of the Rights of the Child (CRC) and the Convention on the Elimination of Discrimination Against Women (CEDAW) will be helpful.

Such activities can be complemented by providing trainers and teachers with opportunities to participate in seminars and workshops on gender-sensitive topics. In addition to the knowledge they will acquire and the opportunities to share their experiences, such a move could broaden their networking and cooperation with organisations and development practitioners working on the same issues. Overall, this will help the trainers and teachers create a learning environment with teaching-learning materials and methods that are responsive to the learning needs and abilities of the target group.

VI.2 Educational considerations

V1.2.1 Developing appropriate curriculum, methodology and training methods

When dealing with girls who have been out of a learning context for a long time, the challenge is to use instructional approaches that grab the trainees' interest and are meaningful and relevant to their needs, while supporting the achievement of stated educational goals.

On-the-job training, in circumstances most familiar to the trainees, is the most effective approach with the aim being to tackle as far as possible immediate problems with exercises that have an immediate effect. Methodologies should draw on their knowledge, experience, aptitudes, attitudes and personality, as well as existing tools. The skills training should aim to

transform gender roles and relations at home and in the community, addressing both women's practical needs for increased income and their strategic interests for greater equality at home and in the workplace (Neunreuther, 1979).

Teaching methods should be learner-focused and interactive in ways that encourage participation and open discussion. They should identify how the students have previously been in contact with enterprise issues. How was the learning framed and how could it be drawn into an entrepreneurship education framework? How would different instructional strategies be used to foster learning?

Care needs to be taken to ensure that manuals, textbooks and instructional aids are not gender-biased and are culturally appropriate, locally prepared or adapted to meet the needs of the specific target group. In addition, as the pilot projects demonstrated, there should be efforts to ensure that training is supported by other development inputs – for example adult literacy, business management skills, access to credit and raising awareness of women's rights.

Modern information and communication technologies (ICT), particularly Internet-based technologies, offer great opportunities to engage in different types of training and explore markets for goods further afield. Having said this, project designers have to be realistic. Projects will not be affordable, relevant or sustainable unless they are also based on the use of technologies that are easily available within the locality. This covers a whole range of both traditional techniques that have been around for centuries and modern technologies. In developing countries, it will be more realistic to launch projects through the application of traditional, indigenous knowledge and skills to solve basic problems and thus reduce communities' dependency on outside expertise. The low cost of local technologies makes them easily replicable wherever similar problems exist.

Countries wishing to introduce projects should be assisted in carrying out a review of existing vocational projects in both formal and non-formal systems to identify those that could be easily scaled up, replicated or adapted. There is scope to increase the coverage and cost effectiveness of training through the use of distance learning and ICT in training projects. This is an area with a lot of potential, provided such technology is carefully adapted to the characteristics and needs of the end-users in the informal economy.

VI.2.2 Teacher training and professional development

The demands are high for project facilitators working in under-resourced areas. But if projects are to inspire their trainees to creativity and livelihoods creation, trainers must be open, prepared to understand the situation and address the learning difficulties of poor out-of-school girls and young women.

Vocational schools, in particular, will need to motivate staff who has conventionally relied upon rote teaching and functional expertise to refocus their teaching style and attitudes upon more gender-sensitive and entrepreneurial approaches. They will need to be willing to review their assumptions on gender, the value of women in their productive roles within the community as well the contribution of these roles to community welfare. This may also mean reviewing assumptions on the meaning of enterprise and the role it plays in society. besides having a knowledge of the local business context. In this way, they will be able to blend their education expertise with an understanding of the multiple issues facing young people.

In the best circumstances, the recruitment of female teachers and trainers would be increased. Women teachers play an important role in raising participation rates and in acting as role-models for girl students, especially in rural areas where girls do not come across many educated women. Another important argument relating to the recruitment of more female teachers is that both boys and girls are expected to be more gender-sensitive if they are in an environment where they see both women and men performing similar functions and duties rather than one where women perform only stereotyped jobs. Overall, mothers in Nepal reported that they were more comfortable in talking to women teachers regarding their children's progress and problems.

When resources do not permit such a recruitment drive, the training of project facilitators in the gender dimensions of project goals, strategies, implementation and monitoring should take place through specialised courses and teacher training seminars. But this is not realistic for all countries. With the current resource constraints, the challenge then becomes how to create scaleable, low-cost teacher training opportunities.

There should be opportunities for vocational teachers to upgrade their theoretical and practical skills as part of their continuing professional development. In-service training should

help keep them abreast of economic concepts, gender-based strategies for poverty reduction, workforce trends and available technologies. They should also be informed about the Convention of the Rights of the Child (CRC) and have opportunities to participate in seminars and workshops about related topics. Besides acquiring knowledge and sharing experiences, they can widen their networking with other parties who have dealt with the same issues.

VI.2.3 Learning schedule and environment

Given the household demands on the target group, it is important to consider that they might have different preference in terms of time to study (unlike formal school). It is also necessary to avoid clashes with activities implemented by other development partners.

The learning environment now includes schools, teachers, assistants, neighbours, the business community and an ever-expanding list of involved citizens. Rather than seeing themselves at the primary source of knowledge and expertise, innovative projects must acknowledge their positions as single actors within broader (and resource-rich) learning communities. They create frameworks for learning exchanges with different bodies within the civic realm at local, national and international levels, linking individuals, organisations and institutions both physically and electronically, to enable students to become informed and resourced. They also recognise the diversity of students' situations within classes. Even those classrooms that appear to be homogenous contain diversity in terms of gender, personality, motivations, physical abilities, ages, learning styles and the religious and political beliefs of students. The project therefore sets out to make the learning process as inclusive as possible.

VI.2.4 Monitoring and evaluation

Innovating the technical and vocational education must involve the development of gender and culturally appropriate methods of ascertaining changes in behaviour and attitudes, as well as measuring the outcomes of training.

While young people cannot be expected to generate livelihoods overnight, it should be possible to develop a set of quality indicators that will give projects a more prominent place within national education agendas and ensure that learning goals are compatible with national education priorities and skills standards.

In this light, measuring skills such as decision-making, negotiation and planning before and after an activity can be quite straightforward. More in-depth analysis could be achieved by looking at the extent to which participation in projects addresses cultural and community needs, reduces poverty and induces community economic development.

The example of the monitoring and evaluation scheme of the project in Cambodia

- Determine criteria to assess education policies and programming in relation to Technical and Vocational Education for Girls (TVE-G) in education.

- Determine criteria to measure the knowledge and attitudes of educators concerning issues of TVE-G in education.

- Develop clear guidelines and objectives for the formal and non-formal education system to promote TVE-G in balance.

- Include reporting on activities in support of TVE-G and in all reports submitted by schools, district and provincial offices of education.

- Include TVE-G as an issue to be included in the agenda of annual assessment and planning meetings within MoEYS and other related institutions.

- Monitor performance of TVE-G through standard reporting procedures to assess towards objectives and to identify opportunity constraints encountered by educational institutions in order to inform future planning.

- Assemble a set of core TVE indicators, which will be regularly updated, as a basis for managerial decisions and the joint MoEYS and donor.

- Strengthen impact and outcome monitoring capacities within formal and non-formal education linked to expansion of TVE and improved collaborative planning with technical departments and other technical institutes.

VI.2.5 The need for post-training guidance and counselling services

Whatever the vocational content of the project, the need to provide guidance for post-training pathways requires greater consideration. In the project countries, institutionalised counselling at technical/vocational level is often rare in the remoter regions, and at best uneven in the more "connected" areas.

There is no one "correct" model for support and counselling. Clearly, provision must reflect specifically the needs and characteristics of the students and be tailored to the local economic conditions. Local education offices would need to identify partners whom they could draw on for relevant expertise and perhaps engage in supporting activities such as preparation of business plans and marketing.

One of the common actions, however, might be to increase the supply of information on informal sector 'careers', as well as information on business registration, sources of seed capital, market information, legal and judicial systems for protecting property rights and resolving contractual disputes, available subsidies and tax incentives. Trainees could also be encouraged to form self-help groups or cooperatives upon completion of the training course to ensure continuous peer support and facilitate access to loans for their planned enterprises.

Especially in developing countries, young people may not be aware of the discipline and tenacity needed to start a business. They could be helped by having more contact during their schooling with role models who can familiarise them with the various stages of venture creation, while fostering realistic expectations about the amount of work involved. The value of female role models could be enormous.

Part VII.

Conclusions

The 'Technology-based Training for Marginalized Girls' project demonstrates that technical and vocational skills training can have a demonstrable impact on poverty reduction, especially when strategies draw on methodologies developed over recent decades in the non-formal education sector for reaching the most vulnerable population groups.

Such projects create contexts that valorise the participation, ideals and voices of the girls, their families and the communities in which they live. Consulting and involving local stakeholders was critical in identifying actual needs and persuading the girls and their families to participate in the training programmes. It was also important to mobilise local NGOs and CLCs in planning, managing and implementing the training programme, as well as addressing the barriers of illiterate and dropout girls and young women's access to vocational and skills training.

The project has challenged gender stereotyping by successfully imparting technical skills that are usually considered to be male domains: computer repair and maintenance, electronics, automotive, and agriculture (animal raising). The project showed the potential of creating female role models in male-dominated technical fields. Another important lesson was that it effectively demonstrated that it is not necessarily less empowering for girls and young women to learn skills in their traditional areas of work. This was especially shown in the experiences of Cambodia and Nepal where girls learned technical innovations in traditional livelihoods such as silk production and dress-making, reviving not only a cultural heritage but transforming the traditional livelihood into a women-led area with potential for economic growth.

The project also showed that education can increase young persons' chances for success by awakening their talents, opening up options for sustainable livelihoods and providing a solid set of tools as they travel along their chosen pathway. Learning barriers and the strategic needs of trainees were taken into account in the community analysis. The flexible and adaptive approach of the project enabled implementers to adopt affirmative measures: providing transport and accommodation support, providing rice incentives, combining the skills training with literacy training, offering complementary learning sessions in mathematics and on gender, providing an open and interactive learning environment and responding to the individual needs and constraints of trainees through counselling.

Measuring the programme's success is still a major challenge. For the time being, local NGOs will be relied on to monitor graduates from the training courses to assess whether they have successfully moved out of poverty. But beyond quantifiable indicators, the success of these interventions can also be measured in terms of empowerment. The results of the Focus Groups suggest that the project has gone some way towards transforming attitudes, perceptions and behaviour on gender relations within families and communities. The gender-sensitive strategies adopted have significantly helped in enhancing the girls' confidence and self-perception. There has also been an impact on the community's economic vitality, building innovative structures for resolving community problems and community optimism.

In the long term, the expansion of such a model depends on overcoming the hesitancy of educators, teachers, families and communities. It is important for planners of technical and vocational education to realise that the complex combination of education prerequisites, attitudes and cultural restrictions on girls' education, and the poverty situation of their families, pose significant obstacles to achieving gender equity in this education sector. Particularly for girls who have little or no formal schooling or have not progressed beyond primary schooling, the minimum 9 to 12 years' education requirement for entry to TVET will automatically deny

them access to this type of education. For many vocational teachers, the wider benefits may not be very clear. But a strong case is made when the linkages to broader social, cultural and environmental goals are drawn out.

Finally, it is important to remember that education and skills training –no matter how innovative the model of delivery– cannot by themselves solve all of society's problems related to gender inequality and poverty. To think so would be to ignore the importance of the wider environment on the life chances and opportunities available to young people in different contexts. A combination –and, most importantly, coordination– of different support services is often needed. This may include literacy and basic education, micro-credit, business development services and social services. Bennell (1999) stated that skills development for marginalized population groups living in poverty must be part and parcel of community-based economic and political development.

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