

# EDUCATION AND TRAINING FOR RURAL TRANSFORMATION

Skills, Jobs, Food and Green Future to Combat Poverty



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# FOREWORD

Our world is grappling with a major paradox: the enormous unmet needs of people alongside significant untapped human resources. Some 3 billion people today live on less than US\$ 2.5 per day, and are therefore unable to meet their basic needs. Until all of them have enough food, adequate clothing, housing, education, medical care and other essential goods and services, we cannot talk of a “dearth” of work.

Poverty remains largely a rural problem. In less developed countries, where 85 percent of people live, over half are rural – and by 2050, this will be the case for some 2.6 billion people in developing countries. As many as 70 percent of young people in Sub-Saharan Africa and South Asia live in rural areas. Most are employed in the informal economy in low-paying and undefined jobs, with little systematic skills development.

In the past few years, new sources of vulnerability for the poor, especially in the rural areas, have arisen, including the recent economic crisis that originated in the financial markets of the West but is affecting poor people everywhere; the growing gaps between supply and demand for jobs and employment for young people; threats to food security; and man-made and natural disasters, including the effects of climate change. These hazards affect disproportionately rural people, because more of them are poor.

Policies and programmes for education, training, skills development and the creation of jobs therefore cannot ignore the special conditions and contexts of rural people. Moreover, urbanisation is building new patterns of economic, ecological and social interaction between urban and rural areas. The phenomenon of rural-urban migration, for example, is both a problem and an opportunity. A well-designed transformational process that builds skills and capacities and applies an ecological perspective can be positive and mutually-beneficial for both urban and rural people.

Technical and vocational education and training and skills development, together with basic and adult education, are vitally important for building a sustainable future based on youth employment, poverty reduction, social inclusion in rural communities and respect for the environment. Maximising the contributions of skills development to social and economic progress requires that a broad vision be developed, encompassing a multiplicity of purposes, providers, settings and learners. Formal TVET is only a part of the full picture. Skills development, wherever and however it occurs, must be made visible, appreciated, supported and given due attention in policy and action. At the same time, TVET by itself does not create jobs or alleviate poverty; decision-makers must put in place the right policies and condition to promote equity and reduce poverty.

The International Research and Training Centre for Rural Education (UNESCO-INRULED), located in Beijing Normal University and established with the sponsorship of the Government of the People’s Republic of China and UNESCO, promotes sustainable development in rural areas through educational research, training and extension activities. In 2009, the UNESCO-INRULED Board decided to examine closely the issues of skills development within its broad mission of exploring concepts, policy and practices in education for rural transformation.

This study brings the perspective of the rural disadvantage to these questions. It takes on the issue of skills development, and its translation into jobs and reduction of poverty, from the point of view of rural people. The emphasis specifically is on education, training and capacity building for rural transformation.

The report attempts to lay out the rationale and concept of rural transformation in the context of poverty reduction as a national development priority. It takes into account emerging issues that have become prominent, such as food security, the green economy and increased urgency of jobs and employment in combating poverty, especially in rural areas.

I am confident that the UNESCO-INRULED report will be an important contribution to defining, developing and committing ourselves to policies and needs-based actions to enhance skills and capabilities of all people, especially those in rural areas.



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# EDUCATION AND TRAINING FOR RURAL TRANSFORMATION

## **Overview** Challenges and Policy Implications

## Overview

Challenges and Policy Implications

---

This overview recapitulates the main arguments and messages of the study and presents recommendations about the future national, regional and international actions and UNESCO/INRULED role in education and skills development for rural transformation. The policy relevant summation, conclusions and recommendations are shown in *italic*. The key points are highlighted in the side notes.

A tipping point in world population was reached in 2011. Of the seven billion people on the planet, the city dwellers surpassed the rural people for the first time in human history in 2011 (Population Reference Bureau: 2011). While half of the world's population now is urban, in Sub-Saharan Africa, India and China the range of the rural proportions are from 55 to 70 percent. By 2050, there will still be 45 percent in India and the 50 least developed countries and a full one-third in the developing regions as a whole. In absolute numbers, one-third of the population of the developing countries, who will live in rural areas and will depend on rural economy and livelihood in 2050, will add up to 2.6 billion.

The basic premise of this report is that poor rural people find it very difficult to manage the multiple risks they face arising from their personal and household circumstances, the natural and climatic hazards, and economic and development situation at national and global levels. The rural poor, the majority of the poor in most countries, therefore, cannot seize the opportunities that may exist or arise for them in agriculture and the non-farm economy alike. Moreover, the overarching global and national challenges of fighting poverty and building the sustainable future cannot be met unless the problems facing the rural majority in the developing countries are effectively addressed.

## 1. Rural Transformation and Skills Development

A report published in 2003 by INRULED titled "Education for Rural Transformation: Towards a Policy Framework" made a plea for rethinking education in rural areas and rural people with a focus on "rural transformation".

The term rural transformation – rather than rural development, rural change or rural education – was used advisedly to convey a vision of pro-active and positive process of change and development of rural communities in the context of national and global changes. Education was seen as a key in-

strument for shaping and fulfilling the goal of rural transformation.

The report focused on the links between education and rural transformation. It underscored the inexorable forces of change rural communities faced and how education, by equipping people with appropriate knowledge, skills and fostering of human dignity, could expand their choices and capabilities to exercise these choices.

### Development and transformation

A transformative view of rural change is not a denial of the general notion of rural development. Rural transformation is all about seeking to improve the living condition of the farmer, the artisan, the tenant farmer and the landless in the countryside. It is about enabling specific groups of people – rural women and youth and disadvantaged segments of the population – to gain for themselves and their children more of what they wanted and needed. It subsumes the core ideas of rural development concerned with improving the well-being of rural people by enhancing their productive capacities, expanding their choices in life and reversing public policies that discriminated against the rural poor.

The report points out that the notion of transformation is consistent with the rural development literature that emphasises agrarian change, integrated national development without marginalising rural people and the rural economy, and the interconnected political economy issues of national and rural development.

It is affirmed that the linear and dichotomous view of development in general and rural development in the form of a movement from agriculture to industry, non-market to market, rural to urban, family work to wage labour, and human to mechanical labour has to be abandoned in favour of a heterogeneous, multi-dimensional and transformative view of national and rural development comprising potentially beneficial mutual interaction between the rural and the broader national reality.

In the least developed countries, 45 percent of the population and in developing countries as a whole one-third of the people will still be rural residents in 2050. These numbers add up to 2.6 billion people.

The overarching global and national challenges of fighting poverty and building the sustainable future cannot be met unless the problems facing the rural majority in the developing countries are effectively addressed.

A transformative view of rural change is not a denial of the general notion of rural development... the linear and dichotomous view of development must be abandoned in favour of a heterogeneous, multidimensional and transformative view of national and rural development.

## Overview

Challenges and Policy Implications

The focus on rural transformation called for recognising new dimensions in the criteria for judging quality and relevance of educational activities.

The rapidly changing rural scene and the dynamics of rural-urban interaction required flexibility and creativity in educational programmes.

In the decade since the UNESCO/INRULED study, the urgency has heightened further for paying attention to rural transformation and making education the vehicle for this transformation. New sources of vulnerability for the poor, especially for the poor people in the rural areas, have arisen. This is graphically illustrated by the recent economic crisis originating in the financial markets of the West but affecting poor people everywhere; new threats to food security of people; and man-made and natural disasters including effects of climate change endangering life and livelihood of millions. These hazards affect disproportionately the rural people, because more of the poor are them.

The UN General Assembly's review in September, 2010 of progress towards 2015 MDG had concluded that many of the MDG goals including those for education, that envisioned a new future for humanity in the 21st century, could not be fully achieved. A reason for this was the fact that a large proportion of the rural people in the developing world remained deprived educationally, missing the opportunity to acquire the skills and knowledge to develop their capabilities and expand their choices in life.

### The structural challenge

The dominant development model based on unlimited consumption and the concomitant rapid urbanisation creates a structural vulnerability for global and national economies. This is manifested in diminishing share in GNP of agriculture and rural production in China and India and other developing countries, while more than half of the economically active people remained dependent for their livelihood and well-being on agriculture.

An even larger structural challenge lies in the economic development goals and aspirations of China and India and the rest of the developing world. These are premised on the consumption habits and patterns of North America and Europe, dependent on ravaging the non-renewable resources of the planet. This is unsustainable and would

lead to the collapse of the system of natural and biological balance of resources of the planet. Rural transformation, even if it is not fully recognised yet, has to be the epicentre of a tectonic shift in thinking and action. But this shift in vision and action would not happen by natural force like the physical tectonic shift. People and nations have to will it and work for it.

*The focus on rural transformation called for recognising new dimensions in the criteria for judging quality and relevance of educational activities. The rapidly changing rural scene and the dynamics of rural-urban interaction required flexibility and creativity in educational programmes, not often found in the conventional formal system.*

*The concerns and priorities of rural people and the transforming rural communities needed to figure specifically and prominently in the educational responses to the contextual trends and influences that have a bearing on national education systems. For example, the human rights perspective, human development imperatives of education, effects of the new information technology, and the crucial importance of pursuing sustainable development objectives needed to be assessed from the point of view of advancing rural transformation.*

### Skills and capacity building

The Education for All initiative launched in Jomtien, Thailand in 1990 and the subsequent Dakar Framework in 2000 and its six goals have influenced policy-making and programme strategies in developing countries.

The Dakar EFA Goal 3 was: *Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life skills programmes.*

Dakar Goal 4 was: *Achieving a 50 percent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.*

The life-skills and lifelong learning goal is not quantified; it actually refers to learning content and learning objectives – the learners should be able to acquire the values, attitudes and skills which would serve them throughout life and the learning process would continue throughout life. The adult literacy goal, which had a quantified target, on the other hand, emphasised the mechanics of literacy skills, equipping learners with literacy as an instrument. Having acquired this instrument, the learners may continue to participate in education. The two goals appear to have been seen as parallel sets of objectives and activities without the mutually supportive and energising interaction required to pursue the Education for All rationale. The weakness in coherence in definitions and concepts of adult learning, skills development and lifelong learning and their relationships appears to have had adverse consequences in many countries (Ahmed: 2009).

*UNESCO-INRULED decided to examine closely the issues of skills development within its broad mission of exploring concepts, policy and practices in education for rural transformation. The confluence of global forces and national situations, especially in the poorer countries and regions of the world prompted UNESCO-INRULED to take this decision. These forces and factors include persistent and growing gaps between supply and demand for jobs and employment for young people, growing vulnerabilities and risks for poor people, threats to food security, and the urgency of building a sustainable green future.*

## 2. Education and Skills to Combat Rural Poverty

### A paradox

A paradox of a global proportion prevails today, which is the persistence of enormous unmet needs of people and, at the same time, the huge wastage of untapped human resources. There are approximately three billion people with unmet basic needs living on incomes of less than US\$ 2.50 a day. These billions lack the minimum requirements for a normal life. There cannot be a dearth of work

until these people have adequate food, clothes, homes, education, medical care and other essentials of life. But the national and global economic systems fail to harness the technological and organisational resources, and most importantly, the human resources, to meet the unfulfilled human needs. Over 200 million people in the world today, who are willing and able to work, are estimated to be unemployed, and probably more than a billion are involuntarily underemployed (Jacobs: 2011).

*The unemployment and under-employment of over a billion people is the greatest single direct obstacle to halving absolute poverty by the year 2015 – the overarching MDG goal. There is a massive mismatch between work to be done and people who need jobs. This gap has to be bridged by skills development and policies and actions to use the skills in decent jobs that are socially beneficial and personally rewarding.*

### Education, skills and pathways out of rural poverty

Understanding the role of skills development in combating rural poverty requires a better grasp of the pathways out of poverty for rural people. Indeed this is the central question in the context of rural transformation. This question has been a concern to policy makers, practitioners and researchers at national and international levels for some time.

A special evaluation study in three countries – China, Malaysia and Vietnam – by the Asian Development Bank attempted to answer the questions: How do poor households in rural areas rise out of poverty? How effective are certain poverty reduction interventions? What are some lessons for the future? (ADB: 2006). Substantial reduction of rural poverty was found in all of the project areas, in line with general poverty reduction and economic growth in the three countries. However, it was found that vulnerabilities and risks arising from unpredictable and not infrequent man-made and natural emergencies, which rural households faced, kept them in or pushed them back into poverty.

**The weakness in coherence in definitions and concepts of adult learning, skills development and lifelong learning and their relationships remain widely prevalent with adverse consequences in many countries.**

**There is a massive mismatch between work to be done and people who need jobs. This gap has to be bridged by skills development and policies and actions to use the skills in decent jobs.**

**Understanding the role of skills development in combating rural poverty requires a better grasp of the pathways out of poverty for rural people.**

## Overview

Challenges and Policy Implications

Major vulnerabilities included (i) serious or chronic illness of primary wage-earner or other family members; (ii) natural disasters such as cyclone and flood that disrupted life and destroyed temporarily or permanently livelihoods and occupations; and (iii) large investment losses due to market fluctuations, epidemic outbreaks of animal disease, or natural disasters.

In the specific cases studied in this report, constraints identified in the poverty reduction interventions were: (i) isolated investments in upgrading rural roads in remote and poorly endowed regions without linking these or assessing fully the ancillary economic and ecological factors; (ii) add-on components satisfying ADB's pro-poor conditions, such as HIV/AIDS or gender-related actions, without sufficient demand from clients; and (iii) household and geographic targeting used in investment projects that did not tackle the key causes of poverty, but assumed that funds flowing into poor regions, or intended benefits for socio-economic groups, would automatically lead to poverty reduction.

*The solutions to the problems noted in fact did not lie within the rural communities in the poor regions themselves or within the defined scope of the interventions. Longer term and broader interventions within a larger regional framework were considered necessary. Coordinated infrastructure development, improvement of social services, investments focused on job creation, availability of credit under appropriate terms, safety nets to reduce vulnerability of households, and education, training and appropriate skill formation activities as well as support to orderly migration of workers to locations with better job prospects were seen as the appropriate interventions. All these needed to be carried out with a coordinated approach.*

It is noteworthy that the limited and non-sustained poverty reduction outcomes were observed in the three countries in periods when they enjoyed high aggregate economic growth at the national level and the countries were regarded as success cases in economic development and poverty reduction. It can be reasonably surmised that in the context

of less robust national economic growth, the constraints encountered would be greater and the outcomes would be even less positive.

### Relative roles of agriculture and non-farm activities

Logically, the pathways out of poverty for rural people have to be strongly connected to productivity increases and expansion of employment in the rural economy through farming activities, rural non-farm enterprises or via rural-urban migration. Literature on rural poverty supports the view that agricultural growth has historically had an important role in poverty reduction in many countries (e.g., Ravallion: 2004; Besley and Cord: 2006).

With more open trade and market development within and among countries for agricultural products, slowing of population growth, and the growth of non-farm economic activities, the overall economic growth and poverty reduction is no longer dominated by the agriculture sector. Overall in developing countries, non-farm output now accounts for roughly half of rural income. Despite the fact that some non-farm activities are characterised by low productivity and low earning, many have a greater potential for enhancing rural income and employment than farming activities.

The question is not whether the emphasis should be on agriculture or non-farm activities, but what the pragmatic and dynamic combination should be and what may be the relative balance of inter-sectoral transitions and importance of rural-urban migration. The answer for any given country depends both on its factor endowments as well as its policy and institutional environment (McCulloch *et al.*: 2007).

A sample of analytical evidence from Sub-Saharan Africa and Asia sheds light on the connection between educations, skills and jobs, on the one hand and the economic and political policy directions for fighting rural poverty on the other. The obstacles that had to be overcome for success in fighting poverty were of several kinds:

The solutions to the problems of rural poverty often in fact did not lie within the rural communities themselves or within the defined scope of the poverty reduction interventions.

The pathways out of poverty for rural people have to be strongly connected to productivity increases and expansion of employment in the rural economy through farming activities, rural non-farm enterprises and via rural-urban migration.

- Poor natural resource endowment – shortage of farmland, shortage of water and inhospitable climatic and ecological condition for improving agricultural productivity, both with smallholders or moving into larger commercial production.
- Infrastructure deficiency – poor roads, inadequate irrigation and water supply, insufficient energy and power, and insufficient investments for these purposes.
- Institutional deficiencies of several types – lack of credit in accessible terms for the poor, political and bureaucratic obstacles to labour mobility, absence of social safety net, such as health care and child and old age benefits, insurance against catastrophe, protection against natural disasters other vulnerabilities, poor civic governance in general.
- Socio-cultural obstacles – language and ethnicity as obstacle to labour mobility or accessing economic opportunities.
- Human development deficiencies – poor quality of primary education that does not ensure basic literacy and numeracy skills for many children, particularly the poor; lack of secondary general education and appropriate skills development; and scarce tertiary education that could bring technical know-how and support technology adaptation in rural areas.

Not mentioned in this enumeration based on the country data are insufficient non-formal and informal skill development and insufficient general adult and lifelong learning opportunities. Also not specifically mentioned are commonly observed phenomena, such as, corruption that seriously undermined sound and promising projects, improper political patronage and interference, and clans and tribes rivalries affecting project efficiency. The research design and the researchers; judgement about the socio-cultural constraints appear to have led to this neglect.

*Four general comments are pertinent about overcoming constraints to policies that promoted land and labour productivity in rural areas.*

*First, the solutions to some of the major problems did not lie in specific interventions within the rural community or the locality, such as, those about social safety net and credit policy, and bureaucratic and legal barriers to labour mobility and labour market flexibility. The problems of farmland shortage and population pressure also required regional or even national strategies much beyond the boundaries of the rural localities.*

*Second, macroeconomic conditions and policies that were effective in promoting aggregate economic growth served as a positive backdrop for implementing poverty reduction actions; and the opposite in the case of slow growth.*

*Third, good quality primary and secondary general education was important for helping young people from poor households take advantage of better paying and higher productivity non-farm employment opportunities. This was necessary for participating in occupation-specific skill training or gaining entry-level spots in firms for on-the-job or in-house training. The corollary to this condition was that education and training were not particularly a requirement for low-productivity, low-wage and low-skill jobs in the informal sector.*

*Finally, different kinds of constraints, education and training for skills development being a major one, point to the importance of finding ways of bridging various gaps between concepts and practices. These gaps are primarily between poverty reduction strategies and actions, on the one hand, and generation of skills and jobs, on the other. It is a problem of bringing the two areas of policy and strategy discussion, which have continued somewhat in parallel, into one universe of discourse. The links, sometimes rhetorically recognised, need to be clarified and sharpened. The implications for policy and coordinated action that addresses the interfaces of skills, employment and poverty reduction among rural people need to be spelled out and acted upon.*

**Good quality primary and secondary general education was important for helping young people from poor households take advantage of better paying and higher productivity non-farm employment opportunities.**

## Overview

Challenges and Policy Implications

It is clear that many rural people will need to move from traditional agriculture-based occupations to non-farm activities and many will need to move in search of jobs to towns and cities.

Employment is the missing link between growth and poverty reduction.... sustainable poverty reduction requires simultaneously social transfers, investments in social and physical infrastructure and good labour market performance. These constitute key policy orientations for any country to succeed in reducing poverty in rural areas.

### Jobs and escaping rural poverty – state of the discourse

It is clear that many rural people will need to move from traditional agriculture-based occupations to non-farm activities and many will need to move in search of jobs to towns and cities. Many will need skills that are different from those of their parents and these needs keep changing at a faster pace than before. But how exactly are skills turned into gainful and rewarding jobs? And how and what kind of employment creation can lift people out of poverty in rural areas?

The International Labour Organisation (ILO) proposed the adaptation and application for rural economic activities its Global Employment Agenda (GEA) and the related Decent Work Agenda (DWA) as the framework for shaping policies and actions to reduce poverty by generating more and better jobs. ILO advocates the integration of economic and social objectives, and a well-orchestrated combination of measures in the areas of employment promotion, rights at work, social protection and social dialogue. It argues that expanding “decent work” for rural people opened the avenue out of poverty (ILO: 2003).

The ten core elements of GEA are:

- Promoting trade and investment for productive employment and market access for developing countries.
- Supporting technological change for higher productivity and job creation and improved standards of living.
- Promoting sustainable development for sustainable livelihoods.
- Macroeconomic policy for growth and employment moving towards policy integration.
- Encouraging decent employment through entrepreneurship.
- Enhancing employability by improving knowledge and skills.
- Active labour market policies for employment, job security, equity and poverty reduction.

- Looking upon social protection as a productive factor.
- Occupational safety and health: synergies between security and productivity.
- Productive employment for poverty reduction and development.

The concept of decent work emphasises shaping of policies and actions to reduce poverty by generating more and better jobs. It calls for the integration of economic and social objectives and for a well-orchestrated combination of measures in the areas of employment promotion, rights at work, social protection and social dialogue. Decent work is thus a productive factor, and social policies based on decent work have a dynamic role to play in promoting a healthy economy and a just society.

*The insight underlying GEA and the decent work concept is that employment is the missing link between growth and poverty reduction. It also emphasises that sustainable poverty reduction requires simultaneously social transfers, investments in social and physical infrastructure and good labour market performance. These constitute key policy orientations for any country to succeed in reducing poverty in rural areas (ILO: 2003 and 2008).*

How realistic are the premises and promises of GEA and decent work for rural people? More and better jobs are expected to improve agricultural productivity and benefit farm households by raising incomes and food security, in both urban and rural households. The benefits would accrue from higher wages, lowered food prices, increased demand for consumer and intermediate goods and services, rise in returns to labour and capital and improved overall efficiency of markets (ILO: 2008, p.14).

In reality, the gap in many countries has widened between urban and rural livelihoods. The positive effects mentioned may be experienced mainly in suburban perimeters and along main trunk roads. The increases in commodity prices fail to reach the very small producer, who faces rising costs for inputs,



but receives a shrinking portion of the market value of his or her crops. Nor do agricultural workers often see higher commodity prices translated into fuller wage packets.

## Rural labour market

Rural labour markets are dominated by unskilled labour where workers are with little formal education or training. The prevalence of casual labour and child labour contributes to low productivity, low wages and weak bargaining capacity of workers. Labour market governance and institutions are usually weak in rural areas and have little capacity to directly address factors determining supply or demand for labour.

With a total of over 1 billion people employed in the agriculture sector in the world, it is the second greatest source of employment worldwide after services, but agricultural workers enjoy a disproportionately low share of national income. It is noteworthy that with close to 90 percent of rural employment in developing countries in agriculture and farm-related work, the sector was the source of less than two-thirds of the total rural income. This disproportion is a manifestation, in a way an explanation, of the low income and poverty of rural people.

In short, although agriculture is still the predominant source of livelihood for rural women and men, agriculture alone cannot alleviate rural poverty. In all rural communities, the promotion of sustainable off-farm enterprises is necessary to generate more and better jobs. The weight of research and evidence points to the importance of non-farm enterprises as a driver of rural development, income growth and poverty reduction.

## Addressing extreme poverty and social exclusion

Extreme poverty of a proportion of rural people places them under special vulnerability. The first Millennium Development Goal is to halve the number

of people living in extreme poverty by 2015. It is now expected that the global poverty rate will fall below 15 percent, well under the 23 percent target for 2015. This global trend, however, mainly reflects rapid growth in East Asia, especially China. Success in bringing the proportion of humanity living in extreme poverty to below 15 percent would still leave 900 million people living on less than US\$ 1.25 a day (UN: 2011).

*The initiatives to address the situation of the extreme poor, such as the ultra-poor initiative in Bangladesh and the rural employment guarantee programme in India, appear to have not given due attention to the linkages between assistance to address extreme poverty and vulnerability and human capital development, especially building skills and capacities of the participant families, except as specific orientation type of activities in the former case. There has been no attention to educational needs of children except for exhortation to enrol in primary school. The school did not function effectively in the first place in the concerned communities and the majority of children of the poor, who enrolled, dropped out before completing primary education.*

*The situation of extreme poverty also raises the general question of social exclusion of segments of the population, especially in the rural areas, from benefits of development and how social protection can be extended to them. Social exclusion and poverty are intimately linked and are largely co-existent. Focusing on social exclusion is necessary in policy-making and planning for effective and sustainable action to combat the multi-dimensional causes and consequences of extreme poverty and vulnerability of people.*

However, the normative assumptions about exclusion and inclusion, as negative and positive phenomena, may distract attention from how exclusion actually works in specific contexts. The theoretical formulation may ignore the agency of poor people in taking action to help them, looking at them as powerless victims. The term originated in the industrial countries where relatively small minorities are affected by the exclusionary

**Rural labour markets are dominated by unskilled labour where workers are with little formal education or training. The prevalence of casual labour and child labour contributes to low productivity, low wages and weak bargaining capacity of workers.**

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Challenges and Policy Implications

In rural areas of many developing countries, the “marginalised” may even be the majority in some situations. Inclusion and exclusion, therefore, need to be considered in terms of structural changes, rather than correcting aberrations within existing structures which affect small numbers.

In the context of poverty reduction and rural transformation, the generic skills development issues have to be examined in relation to the goal of a broader and multi-faceted rural transformation.

This challenges the MDG and EFA premise that the completion of primary education will contribute to realising the goal of cutting in half by 2015 the number of people living in dire poverty.

It is not uncommon for children to take 8 to 12 years of schooling to acquire basic skills of literacy and numeracy at a functional level.

conditions. When applied to developing countries, the assumptions and the logic may get distorted. In many developing countries, especially in rural areas, the “marginalised” constitute large numbers, even the majority in some situations. Inclusion and exclusion, therefore, need to be considered in terms of structural changes, rather than correcting aberrations within existing structures which affect small numbers (ILO: 2008, *ibid.*).

### The nature of skills development

Skills development cannot be equated with formal technical and vocational education and training (TVET) alone. It comprises capacities acquired through all levels of education and training, occurring in formal, non-formal and on-the-job settings. It enables individuals in all sectors of the economy to become fully and productively engaged in livelihoods and to have the capacity to further enhance and adapt their skills to meet the changing demands and opportunities in the economy and labour market. Skills development should not be characterised by the source of education or training itself, but by the capacities that are acquired through this process (Palmer: 2005).

*The broader concept of skills development has several important operational and practical connotations:*

*First, skills development is not an isolated and self-contained area of activity. There are critical connections with the general education system including basic, secondary and tertiary stages, and non-formal and informal education, which influence the characteristics and outcomes of the skills programmes. In this regard, it is a part of the Education for All (EFA) initiatives which have shaped educational priorities and plans in developing countries.*

*Secondly, skills development is not confined to institutionalised formal training labelled as technical and vocational education and training (TVET). There is a wide range of modalities of delivery, organisational and institutional mechanisms, locus of responsibility, and diversity of objectives and clientele for skills development programmes.*

*Thirdly, skills development is broader than skills related to economic production or earning a wage. It extends to organisational and management skills, especially in relation to self-employment; life skills that makes an effective and responsible worker who derives pride and satisfaction from work; and civic and family life skills that enhance an individual's performance as a worker and as a person.*

*Fourthly, in the context of poverty reduction and rural transformation, the generic skills development issues have to be examined in relation to the goal of a broader and multi-faceted rural transformation. The implications of a broad view extend beyond purely rural to national development goals and priorities.*

### Education and skills development

Rural transformation and skills and capacity building for it are not objectives exogenous to basic education. Specific occupational and employment-related skills are generally acquired at the post-primary or even post-secondary stage. The presumption is that young people bring basic educational competencies, knowledge and proficiencies that they acquire from primary, lower secondary or secondary education, to skill training courses.

#### Achieving basic competencies

*It is not uncommon for children to take 8 to 12 years of schooling to acquire basic skills of literacy and numeracy at a functional level. A large proportion of children in many developing countries, especially in the rural areas, never reach this stage. This situation challenges the MDG and EFA premise that the completion of primary education will contribute to realising the goal of cutting in half by 2015 the number of people living in dire poverty worldwide.*

#### Second level education and skills

The skill requirements of rural jobs continue to rise along with required general education levels of workers. The question of the linkage between post-primary/secondary education and skills development are framed by two related concerns – how

secondary education, lower and higher stages of it, contribute to conventional vocational and technical training as well as to emerging non-conventional skills development needs; and to what extent and how secondary education itself can become “vocalised” and complement conventional TVET? (McGarth: 2007).

The position of the World Bank, based on substantial analytical work, is that effective teaching in primary and secondary schools of language, maths and science is a better vocational preparation than making schools technical or vocational. However, the Bank’s lending and technical assistance have not been fully consistent with this policy recommendation. Many countries also appear to have opted for a mixed approach with a degree of “vocalisation” in the mainstream general secondary education, adopting variations of European models, despite major contextual differences (King: 2007). Ensuring adequate basic competencies of young people in languages, math and science for their later success in the world of work, irrespective of occupations, remains a challenge in most developing countries.

Many developing countries are seriously constrained by demographic pressures and financial limitations. In Sub-Saharan Africa, for instance, labour force is projected to grow between 2 to 3 percent or more a year at least in the near future (UNDP: 2011). Despite some movement away from agriculture, most of the labour force, ranging between 80-90 percent, is working in the informal sector, much of it at low levels of productivity and earning.

For a significant proportion of this majority group, adequate and easy access to secondary education and vocational education and training (VET), in varying combinations of general and vocational education or in separate programmes of acceptable quality, is necessary, but lacking seriously. In developing countries excluding China, almost half of the children of secondary school age are not enrolled in school. In most cases, it is even less for girls, except in Latin America and the Caribbean.

The proportion of the secondary level students in technical and vocational education varies regionally, but is the lowest in South Asia and Sub-Saharan Africa.

### **Non-formal, adult and lifelong learning**

The Global Monitoring Report team found goal 3 related to meeting *the learning needs of all young people and adults through equitable access to appropriate learning and life skills programmes* as the hardest to define and measure, because of the character and multiple dimensions of this area of learning needs (UNESCO-GMR: 2011).

*There is clearly a need for special attention to rural areas in addressing skills development for poor people. This must be linked to a renewed understanding of the importance of agricultural development in general and non-farm development in rural areas. There is a parallel challenge of skills development for the informal economy, the major source of employment and income in both rural and urban people in developing countries. There needs to be a focus on the ways of combining education and training with the devising of ways for effective entry into the labour market in rural and informal economy contexts. Alternative paths and second and recurrent opportunities for acquiring general education competencies separately or in combination with occupational skills need to be expanded.*

### **Tertiary education and rural skills development**

Higher agricultural education is expected to support development of skills and employment and contribute more broadly to poverty reduction and economic development among rural people. Two pertinent questions arise: how well are tertiary level academic institutions in agriculture playing the expected role? Secondly, is tertiary education contribution to rural development, especially of a broader transformative nature, confined to higher agricultural education? Poor quality training of agricultural professionals, technicians and producers has been identified as part of the global food security problem as well as the broader issues of poverty alleviation and development in rural areas.

**Adequate and easy access to secondary education and vocational education and training (TVET), in varying combinations of general and vocational education or in separate programmes of acceptable quality is necessary for the new entrants to the work force, but these are lacking seriously.**

## Overview

Challenges and Policy Implications

The development of human resources in agriculture, technology and other developmental priorities for rural areas is often not a high priority in the overall development plans of countries.

*The development of human resources in agriculture, technology and other developmental concerns for rural areas is often not a high priority in the overall development plans of countries. The Chinese government has three new policy measures in place in order to overcome inequities in access – (i) to invest more money in the less developed regions to expand tertiary education opportunities for ethnic minorities and students from poor families; (ii) to allow poor students to take loans from their hometown local authorities for higher education, and (iii) to expand technical and vocational education to complement standard tertiary opportunities in the country.*

Similarly, the Mexican Jóvenes con Oportunidades offers youth in school a savings account in which they accumulate points during grades 9 to 12. The money can be tapped upon the completion of 12th grade for further study, opening a business, improving housing, or buying health insurance. The programme thus provides incentives for children to graduate from secondary school and facilitates their continuing on to higher education.

### TVET to skill development – the spectrum of skills

#### *A broad vision of education, training and skills*

Education and training – purveyor of knowledge, skills, confidence and hope to the participants – need to generate the energy and creativity among rural people to face up to the complex world around them fraught with risks and possibilities. Attempts to gauge the effects of education on rural development have to view education, broadly defined to subsume formal and non-formal modes as well as training and skills acquisition, as means for gaining knowledge, transforming attitudes and acquiring skills.

#### *The spectrum of skills*

*There is general agreement that literacy and numeracy skills alone are quite inadequate for success in productive and occupational roles. These skills need to be accompanied by the acquisition of appropriate*

*attitudes, knowledge and skills relating to vocations and income-generation, as well as management, entrepreneurship and social, political and cultural life. By the same token, technical and vocational skills, narrowly and specifically defined and taught to carry out certain occupational tasks, are not often enough even for the particular task, not to speak of adapting to the changing and evolving nature of occupations and job markets.*

#### *Skills within the rural transformation framework*

The themes of moving from institutional TVET to development of skills in multiple modalities, and looking at the scope of skills development as a wide spectrum, are totally consistent with the transformative view of rural development. This view calls for three kinds of change in the way skills development strategies and programmes are conceptualised and planned (WGICSD: 2007).

First, there has to be a greater emphasis, in objectives and content of programmes, on agriculture-related and rural development skills within TVET and broader skills development activities. TVET provision itself has to be made transformative by linking it to rural economic regeneration and also to inter-sectoral and geographical mobility of labour.

Second, rural skills interventions have to be specifically incorporated in poverty reduction strategies. Reforms of TVET need to incorporate diverse capacity building of the poor, provisions beyond formal institutions, better functioning of decentralised governance, and involvement of NGOs, civil society and the private sector in skills development.

Third, the essential corollary of rural transformation is the broadening of the EFA agenda to include skills and capacity building for rural youth and adults. The targets and strategies regarding EFA goal 3, skills development of youth and adults, have remained problematic with difficulties both in defining indicators of progress and recording or demonstrating progress.

*In short, skills development for rural transformation with a focus on combating rural poverty has to be premised on the development of capacity for learning, innovation and productivity of rural people. Skills have to be regarded as more than narrow technical competencies, encompassing capabilities in communication, teamwork, creative skills, and interpersonal behaviour. Moreover, education, training and skills development have to be planned and implemented, not in isolation, but within a comprehensive approach for poverty reduction, identifying the right pathways out of rural poverty.*

### Skill needs in rural areas

The discussion of education and skills development issues – how they relate to each other, the nature of skills and their development, and placing skills within the framework of rural transformation – still begs the question what skills are relevant and necessary when the goal is lifting people out of poverty and contributing to transformative change in rural areas.

Typologies of skills and learning needs in rural areas, with large proportions of the people in poverty and under-development have been attempted to be developed. The taxonomy has been derived from analyses of inter-connections and interplay of the sociological, cultural, economic and educational dimensions of poverty. One approach is to look at it from the point of view of areas of capacities that need to be developed, such as: basic tools of learning, skills related to quality of life improvement, productivity skills, and skills related to organisation, attitudes and values.

*Another way of constructing a typology of learning needs is to focus on occupational categories and people who may be engaged in these. Major rural occupational categories include: (i) persons directly engaged in agriculture; (ii) persons engaged in off-farm commercial activities; and (iii) general services personnel – rural administrators, planners and technical experts. Types of learning needs at various levels of sophistication and specialisation for these groups are listed below:*

- *Farm planning and management, rational decision-making, record-keeping and revenue computations; use of credit.*
- *Application of new inputs, varieties, improved farm practices.*
- *Storage, processing and food preservation.*
- *Supplementary skills for farm maintenance and improvement, and sideline jobs for extra-income.*
- *Knowledge of government services, policies, programmes, and targets.*
- *Knowledge and skills for family improvement (e.g. health, hygiene nutrition, home economics, child care, family planning).*
- *Civic skills (e.g. knowledge of how cooperatives, local government, national government function).*
- *New and improved technical skills applicable to particular goods and services.*
- *Quality control.*
- *Technical knowledge of goods handled efficiently to advise customers on their use, maintenance, etc.*
- *Management skills (business planning, record-keeping and cost accounting, procurement and inventory control, market analysis and sales methods, customer-employee relations, knowledge of government services, tax regulations, use of credit).*
- *General skills for administration, planning, implementation, information flows, promotional activities.*
- *Technical and management skills applying to particular specialties.*
- *Leadership skills for generating community enthusiasm and collective action, staff team work and support from higher echelons (Coombs and Ahmed: 1974).*

#### Life skills

Besides general competencies (such as literacy, numeracy and reasoning skills imparted through basic general education) and production and vocational skills, another category described as life skills has come to the fore as important, especially for people in social and economic disadvantage,

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**Education, training and skills development have to be planned and implemented, not in isolation, but within a comprehensive approach for poverty reduction, identifying the right pathways out of rural poverty.**

## Overview

Challenges and Policy Implications

Life skills are important for functioning effectively as a person and as a member of family, community and society, and have a particular relevance for people struggling to overcome disadvantage and discrimination.

A learning community cannot become a reality unless learning itself becomes continuous and lifelong.

For non-literates, continuing education would mean functional literacy combined with a series of demand-based learning activities.

The sustainable livelihood approach (SLA) can be the bridge in bringing the diverse assets which have to be brought together to make a difference in the life of rural people.

Five types of asset were identified: human capital, social capital or support derived from belonging to social groups, natural or ecological capital, physical capital, and financial capital.

as the rural poor are. Life skills are important for functioning as a person and as a member of family, community and society effectively, and have a particular relevance for people struggling to overcome disadvantage and discrimination.

*Conceptualised in the context of HIV/AIDS crisis, life skills were seen as adaptive and positive behaviour that enables individuals to deal effectively with the demands and challenges of everyday life. In particular, life skills are regarded as a group of psycho-social competencies and interpersonal skills, and are grouped into three broad categories: (i) communication and interpersonal skills; (ii) decision-making and critical thinking skills; and (iii) coping and self-management skills (UNICEF: 2005).*

### **Learning community and lifelong learning**

The rural communities require the entire gamut of educational and training services – early childhood care and development, quality primary education for all children, second chance basic education for adolescents, literacy and continuing education programmes for youths and adults, vocational skill development, and knowledge and information for improving the quality of life. This wide-ranging need cannot be met by piecemeal learning and skills development provisions. This is where the concept of the “learning community” assumes a special significance.

*A learning community cannot become a reality unless learning itself becomes continuous and lifelong. Within the broad context of the learning society, it means providing every individual with the conditions for continuous learning for improving his/her lot. Depending upon where one is positioned in the ladder of learning, it may mean different things to different individuals.*

For non-literates, continuing education would mean functional literacy combined with a series of demand-based learning activities. For a farmer, it may mean the acquisition of farming and farm management techniques. For a semi-literate rural woman who has been “pushed out” at the primary

education stage, it may mean the facility to learn a new skill that would enable her to enhance the level of living of her family (UNESCO-INRULED: 2003).

### **Bridging skills, jobs and poverty reduction – the sustainable livelihood approach**

Rural households attempt to adopt livelihood strategies that respond to varying combinations of human, social, natural, physical and financial capital to which they may have limited or little access. Skills and capacities of people, specific and generic, and education and training opportunities constitute a critical asset, but have to be put to work in combination with other key assets to change the situation of the rural poor.

Households require a range of assets to achieve positive livelihood outcomes; no single category of assets on its own is sufficient to yield the many and varied outcomes that people seek. The different forms of assets, including skills and capacities of people, have to be brought to bear in a coordinated way on the endeavour of fighting rural poverty and contributing to rural transformation. The sustainable livelihood approach (SLA) can be the bridge in bringing the diverse assets together to make a difference in the life of rural people.

*In the articulation of concept of Sustainable Livelihood Approach, the focus is on understanding and addressing the vulnerabilities of poor people. Five types of asset were identified: (i) human; (ii) capital; (iii) social capital or support derived from belonging to social groups; (iv) natural or ecological capital; and (v) physical capital and financial capital. Particularly relevant is the organisational and institutional environment within which poor people attempted to make use of assets of different types in working out a livelihood strategy for them.*

*SLA's aim is to show the complex range of assets and activities on which people depend for their livelihoods, and to recognise the importance to poor people of assets much of which they do not own. SLA can, its*

advocates argue, provide a framework for considering the whole range of policy issues relevant to the poor, such as, access to health and education as well as to finance, markets, and personal security. Sustainability and continuity of change necessary to be brought about could be promoted through participatory approach, being responsive to changing circumstances, and working at multiple levels from national to local, in partnership with public and private sector (Norton and Foster: 2000).

## Cross-cutting concerns – youth, gender, migration

### Youth – a neglected agenda

The United Nations defines youth as individuals aged between 15 and 24. The 2007 World Development Report about “the next generation” extends the age-range downward to 12. However, distinguishing between who is rural and who is urban is complex, particularly for young people who have a tendency to be more mobile than older people (World Bank: 2006).

With a few exceptions (such as in South Africa), youth as a group is mostly not a policy priority. Youth, especially in rural areas, do not constitute an organised and vocal constituency with the economic and social clout and lobbying power (Bennell: 2007, p.3).

### Skills development for youth

*The greatest contribution to improving the future employment and livelihood prospects of disadvantaged children and youth in rural areas, as in urban areas, is to make sure that they stay in school and become at least functionally literate and numerate. Expanding quality education opportunities for girls is another priority. Typically, training services for youth are fragmented, without a coherent policy framework, such as policy attention in South Africa, or the countrywide rural training and business support organisation, SENAR, in Brasil. The key challenges in providing high quality training and extension services for rural youth are low educational levels; poor learning outcomes*

*in the education system; scattered populations, low effective demand (from both the self-employed and employers); and limited scope for cost-recovery (Bennell: 2007, p.8).*

### Engendering skills and Jobs

At the heart of reducing unemployment and eradicating absolute poverty in the developing countries lies the economic empowerment of women who are the majority of population and continue to be disadvantaged for historical and contemporary reasons. Girls and women are often in “double jeopardy”, because they are already part of the poor and otherwise disadvantaged groups of society along with the disadvantaged males, and because they are females.

Rural girls and women do not have sufficient access to vocational training and skills development services and their overall low enrolment in education constraints seriously their prospects for better paying wage employment and occupational skill training. Young women and girls are often directed towards stereotyped training and occupations (Bennell: 1999; Mayoux: 2005). Women continue to be under-represented in formal business training programmes and longer term career development opportunities.

Women’s poverty is a function of who has control over assets (including financial assets) and how decisions are made within the household. In many countries, rural women face obstacles to migrating or from accessing gainful and rewarding employment in a variety of ways – prevailing male – dominated social norms, low access to assets, lack of education and lack of time and energy being burdened by household responsibilities, not shared by male members of the family (IFAD: 2011).

*Achieving gender equality requires challenging and changing many of the existing social institutions and their norms in order to address interlocking deprivations which result in poverty for rural women and more general poverty. There are many cases where*

SLA can provide a framework for considering the whole range of policy issues relevant to the poor, such as, access to health and education as well as to finance, markets, and personal security.

Youth, especially in rural areas, do not constitute an organised and vocal constituency with the economic, political and social clout and lobbying power...Typically, training services for youth are fragmented, without a coherent policy framework.

Rural girls and women do not have sufficient access to vocational training and skills development services and their overall low enrolment in education constraints seriously their prospects for better paying wage employment and occupational skill training.

## Overview

Challenges and Policy Implications

Migration in search of work is an essential and important feature of both rural transformation and accelerating urbanisation.

Orderly migration with well-considered policy measures and planned action at both the sending and receiving ends of migration can turn it into a positive force in reduction of poverty and rural transformation.

The first of the eight Millennium Development Goals is to reduce by half the proportion of people suffering hunger by 2015. Despite some progress, achievement of this goal remains uncertain.

*governments have taken important initiatives to change norms and institutions contributing to poverty through gender inequalities. The overarching concern is to make these initiatives work, given that the obstacles and constraints are often daunting.*

*In many developing countries gender discrimination in labour markets has led to a "feminisation of bad jobs" in agriculture and beyond (Jütting and Morrison: 2009). Reversing this trend to the extent it prevails, calls for macro-level policy and local level actions both in building skills and capacities for productive and gainful work and creating the enabling environment for this to happen.*

### **Rural out-migration and skills development**

The acceleration of migration of people out of rural areas of developing countries into urban areas is a defining feature of demographic, economic and social change with profound implications for national development, poverty reduction and rural transformation.

It is estimated that there are 200 million temporary and seasonal migrants in India, and 120 million internal migrants in China. Most migration, and especially labour mobility of the poor, takes place within and between neighbouring developing countries. For example, several African countries simultaneously serve as both source and hosts to large numbers of migrants (Lucas: 2005b). Sixty percent of the world's migrants currently reside in the more developed regions, with 40 percent living in the less developed regions (UN: 2002). South-north migration has important implications for development and poverty reduction in developing countries. But it is dwarfed by rural-urban migration within developing countries themselves or among neighbouring developing countries.

*Micro-studies or village level studies have shown a spectrum of temporary migration including seasonal migration, circular migration and commuting. They are all forms of short-term migration. Migration in search of work is an essential and important feature of*

*both rural transformation and accelerating urbanisation.*

*Orderly migration with well-considered policy measures and planned action at both the sending and receiving ends of migration can turn migration into a major positive force in reduction of poverty and rural transformation. These measures relate to building the human and personal capital assets – appropriate and effective education and training for new opportunities for gainful work both in the rural areas and outside within the country and abroad – and appropriate integrated development planning with a territorial perspective that links rural, peri-urban, and urban areas and smaller and larger hubs of growth.*

### **3. Skills and Jobs for Food Security**

There is a potential crisis in the making in respect of global food security which may be far more serious than what has been experienced recently in 2006-2008. The challenge remains to produce and supply enough safe and nutritious food in a sustainable way for a growing global population, which is projected to reach nine billion by 2050.

Food security is achieved "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (FAO: 1996). It has three inter-connected elements – availability of food, access to food, and utilisation of food.

#### **Fighting hunger in the world**

The first of the eight Millennium Development Goals adopted in 2000 is to reduce by half the proportion of people suffering hunger by 2015. Despite some progress in the last decade, achievement of this goal remains uncertain. The progress has been particularly slow in South Asia and Sub-Saharan Africa. In both regions, there has been a reduction in the percentages affected by shortage of food, but because of high population growth, the absolute numbers of hungry people continue to go up.



A food price inflation has been witnessed in recent years, which appears to reflect a secular trend, and if allowed to go on unchecked, will push many millions more of already vulnerable people over the edge into starvation. The estimate is that an additional 100 million people have been placed in danger by the recent (2006-2008) food price upsurge (Government of Ireland: 2008).

### **Food security in Sub-Saharan Africa**

Climate change and depletion of natural resources will continue to have a major negative impact on food production in vulnerable areas of Sub-Saharan Africa. African agriculture, feeding the population and providing livelihood and employment for the large majority of the people nationwide, and in overwhelming proportions in rural areas, operate largely as smallholdings. The prospects for farm workers without land ownership and off-farm rural employment also ride heavily on the shoulders of the smallholders' ability to multiply farm productivity and generate the wealth to create economic opportunities for all rural people.

It has been argued that large-scale commercial agriculture can be a driver of agricultural growth and can make an important contribution to ensuring food security and reducing poverty in Africa. However, its impact on the poor has to be carefully assessed and a pragmatic approach has to be taken in specific contexts.

### **Food security in China**

China's tumultuous history has had its fair share of droughts and famines. More than 5,000 years of farming also has left its soil depleted, more dependent on technology and agro-chemicals to boost production. Meeting the food demands of 1.3 billion people is a challenge with many ramifications.

The income and livelihood of the vast majority of farmers in China has changed radically in the last three decades. Poverty in rural China has decreased very substantially. Researchers attribute China's

success in increasing agricultural productivity and farmer's income to three major factors: (i) investment in inputs; (ii) investment in adopting relevant technology; and (iii) institutional changes to facilitate effective use of the inputs and the technology (Fan: 1991, 1999; Lin: 1987, 1992a; Yu and Zhao: 2009).

### **Human capital**

The physical and technical inputs and the institutional changes – the essence of the Green Revolution – have made modern agriculture more complicated than the traditional system of the past. Human capital development, important as for the green revolution, is even more vital for post-green revolution agricultural development.

*Some researchers have suggested that the full potential of the technological and physical investments and the reforms in institutions many have not been realised fully in China because of inadequate investment and efforts in developing the necessary human resources (Xu and Jeffery: 1998; Fan: 1999).*

*Some conclusions have emerged from the review of the Chinese agricultural development experience:*

- *The potential for exploiting the benefits of technology such as hybrid seeds is not fully realised due to the increasing complexity of managing production for which investments are needed in developing the skills and knowledge of farmers.*
- *There appears to be a slowing down in productivity and efficiency growth as realising the benefits of technological and other inputs and the management functions become more complex. This complexity calls for greater attention to skills and capacity development of farmers and workers in complementary rural production and services.*
- *Regional disparities in agricultural development and food production, including adoption and adaptation of technologies and management and institutional reforms persist, especially between Western and Eastern China; this persistent disparity calls for scrutiny of policy initiatives taken in this*

**African agriculture, feeding the population and providing livelihood and employment for the large majority, operates largely as smallholdings.**

**Meeting the food demands of 1.3 billion people of China is a challenge with many ramifications... Regional disparities in agricultural development and food production, including adoption and adaptation of technologies and management and institutional reforms persist.**

## Overview

Challenges and Policy Implications

In India and South Asia, malnutrition levels are surprisingly high even in rich income quintiles... The "agency of women", their status in family and society and role in decision-making, is linked to positive outcomes.

Education and skills are constraints in the development of new non-farm sector opportunities in India. Half the people engaged in agriculture are still illiterate and only 5 percent have completed higher secondary education.

Comprehensive social protection programmes are required, given prevailing high inequality and risks faced by vulnerable groups.

Small farms need help with access to extension services and better water management to increase their productivity, especially in rain-fed and dry land areas, where food insecurity is greater.

respect and their implementation.

- *Human capital development including specific skills and capacities and general basic and tertiary education and research needs to be considered as essential components in the formulation of policy and programmes for food security and agricultural development.*

### **Food security in India**

After remaining in food deficit for about two decades after independence, India became largely self-sufficient in food grain production. Food grain production in the country increased from about 50 million tonnes in 1950-1951 to around 240 million tonnes in 2008-2009 recording an annual growth rate of about 2.5 percent per annum.

The data for India and South Asia show that malnutrition levels are surprisingly high even in rich income quintiles, though there is an overall correlation between income and malnutrition. The regional experiences in India highlight differences in basic health care provisions, improvement in child care, and health status of women as factors that explain differences in malnutrition across states. The "agency of women", their status in family and society and role in decision-making, is linked to positive outcomes.

### **Rural non-farm sector in India**

With 55 percent workers in India in the agricultural sector, the avenues for improvement in income and employment have to be found in the rural non-farm sector. India currently produces about 50 million tonnes of fruits and 90 million tonnes of vegetables. Only 2 percent of these fruits and vegetables are processed, as against 23 percent in China, 78 percent in the Philippines, and 83 percent in Malaysia (Rao: 2005; Dev and Sharma: 2010).

Education and skills are constraints in the development of new non-farm sector opportunities. Half the people engaged in agriculture are still illiterate and only 5 percent have completed higher secondary education according to data for 2004-2005.

Some contrasts in policy emphases in India and China with regard to structural transformation in rural areas in creating off-farm employment opportunities are noteworthy. The State's role has been decisive in building up the physical and social infrastructure including land reforms, and basic education development in rural areas (ibid.).

### **Social protection measures**

Comprehensive social protection programmes are required to address the problems of access to food and malnutrition, given prevailing high inequality and risks faced by vulnerable groups. The current major social protection schemes for the poor in India fall into two broad categories: (i) food transfer like public distribution system (PDS) and providing supplementary nutrition; and (ii) guaranteeing employment for the poor.

*India's efforts to achieve food security, combating poverty and expanding gainful employment in rural areas have generated experience and lessons which point to priorities in intervention strategies for the government at different levels and other actors including communities, NGOs and the private sector. The interventions must include components of skills and capacity building, knowledge and technology, and changes in institutional and management mechanisms. Some of the action areas in these categories are:*

- *Small farms need help with access to extension services and better water management to increase their productivity, especially in rain-fed and dry land areas, where food insecurity is greater.*
- *Local knowledge and local seeds should be encouraged to generate higher incomes for small farmers and protect the environment.*
- *Home-grown food should be encouraged to enhance food security and nutrition and setting aside cash for essential non-food expenses such as health and education.*
- *Sustainable agriculture in the ecological conditions of tribal areas merit special attention.*
- *Producers' cooperatives should be encouraged to*

realise economies of scale in buying inputs and marketing outputs, reducing middlemen's high mark-up.

- Promoting the use of information technology for production and marketing, such as, mobile phones, information kiosks, and community radio.
- Organisational and institutional efficiency for major nutrition interventions, such as Integrated Child Development Services (ICDS) and mid-day school meal. Essential micro-nutrients such as Vitamin A and salt iodisation can be made part of the existing programmes mass-targeted at children. (Dev and Sharma: 2010).

Food and nutrition security based on a rights-based approach has to be an inter-sectoral effort and requires social participation in policymaking and implementation. It also requires creating a consensus among different views and implemented through decentralised planning and management within the state and local government systems. It is necessary to review and update the rural and agricultural agendas, strengthening the links between access to adequate and healthy food with consumption and production, and the role of family farming.

### **Food security in Bangladesh**

Bangladesh has made important gains in the last two decades in economic and social indicators, including reducing the prevalence of poverty and child malnutrition. Despite these improvements, Bangladesh remains a food insecure country, with improvements needed in food access and utilisation in particular.

A Bangladesh Country Investment Plan (CIP) for Agriculture, Food Security and Nutrition has been developed through involvement of researchers and wide consultation and endorsed by the Government in 2010. The CIP is designed as a set of investment programmes to fill gaps, scale up current positive interventions and develop new programmes as prioritised by the Government.

*Components for Bangladesh Investment Plan for Food*

*and Security Nutrition relate to food availability, food access and food utilisation.*

### **Food availability**

The main priorities under the food availability component and the areas of programme activities listed focused on:

- Sustaining the availability of key food crops increasingly confronted by considerable challenges including climate change (climatic shocks, increased salinity and sea level rising, floods); decreasing natural resources (scarce water during the dry season, land disappearing at an annual rate of one percent, and the continuing population pressure).
- Improving nutrition status through food production diversification. The need to diversify crop production will shape programme priorities, in particular, in extension, research activities and the development and adoption of improved seeds.
- Increasing purchasing power and rural employment to enhance access to food through improved value added, agro-processing, access to markets and the development of rural businesses.

### **Food access**

Under the component of food access, the priorities are two-fold:

- Different approaches to enhance food access in normal years and in times of unusual conditions such as externally induced market volatility and natural disasters are needed to mitigate food security.
- Safety net activities (food distribution, cash transfers) are being financed by the Government.

### **Food utilisation**

Under Component 3 concerned with food utilisation. Two priorities have been identified:

**Components for Bangladesh Investment Plan for Food and Nutrition Security relate to food availability, food access and food utilisation....**

## Overview

Challenges and Policy Implications

Gaps identified in Bangladesh putting at risk the investment plan for food and nutrition security include skill gaps, limited implementation capacities, and the low operating capacity and result orientation of concerned people and institutions.

Agriculture remains the major, and in many cases the primary, means for the poor to earn an income and have adequate access to food...

Developing smallholder farmers' skills to combine their experience and knowledge with science-based approaches requires strengthening agricultural education, research and advisory services.

- Improving substantially the nutrition status of malnourished population, especially the most vulnerable groups, such as, children under 2 and pregnant and lactating women.
- Ensuring food safety. It is an essential public health function. Food and water-borne diarrhoeal diseases are leading causes of illness and death and cause great human suffering and economic losses.

### Capacity building

Important gaps have been identified in Bangladesh which may put at risk the investment plan for food and nutrition security. These include skill gaps, limited implementation capacities, and the low operating capacity and result orientation of people and institutions. To overcome this obstacle, a key element in all of the major programme components has to be the enhancement of capacities at various levels, from government institutions to the grassroots level, by strengthening workers, producers, administrators, and community organisers in accessing knowledge and developing skills.

### Sustainable agricultural intensification

Agriculture will continue to play a central role in tackling the problem of food insecurity. Maintaining and increasing global food production, ensuring food availability, is clearly dependent on agricultural productivity gain. It is also the major, and in many cases the primary, means for the poor to earn an income and have adequate access to food.

#### Sustainable agricultural intensification

An agenda for sustainable agricultural intensification has been emerging and various sustainable intensification practices are being taken up by a growing number of farmers. The agenda requires that farmers, especially smallholders, develop their own practices, capitalising on their local knowledge as well as scientific research to address their specific problems. A combination of a systemic approach, adaptation to the local context, and linking farmers' and scientists' knowledge – are key to the emerging agenda.

Developing smallholder farmers' skills to combine their experience and knowledge with science-based approaches require strengthening agricultural education, research and advisory services. It also calls for greater collaboration, innovation and problem-solving among smallholders, researchers and service providers (IFAD: 2010).

Apart from the issues of intensifying sustainable agriculture, there are other obstacles to achieving food security.

#### Competing demands of biofuels and food

Biofuel production, mainly because of the US government support for ethanol production, has pushed up feedstock prices. Energy and agricultural prices have become much more interdependent with industrialised farming, more processing and increased transport, as well as the emergence of the biofuels industry (particularly for maize, oilseeds and sugar feed stocks) (OECD – FAO: 2009).

#### Food losses and wastes

The efforts to increase food production must go hand in hand with reduction of losses and waste of what is produced at various stages of production, distribution and consumption. Loss and wastes of food and preventing and reducing such losses have not received due attention, although up to a third of food produced may be lost before it is consumed. The various stages at which losses and wastes occur are related to the components of food security, viz., availability of food, access to food, and consumption of food to maximise the nutritional outcomes.

#### Interdisciplinary approach

The multiple dimensions and a systemic approach to food security call for an inter-disciplinary perspective in understanding and addressing problems.

*There is obviously no silver bullet solution to the multifaceted challenge of ensuring food security for the world's growing population. Bringing an interdisciplinary*

perspective to bear on a set of workable pragmatic actions, with a 2050 time horizon, suggests blocks of strategic actions for moving towards greater food security and still keeping the planet safe and healthy, as listed below (Clay: 2010).

- *Harnessing the science of genetics: Ten crops account for nearly 90 percent of all calories. Only two are on track to double production by 2050. Genetics (e.g. traditional plant breeding, hybrids, genetic engineering) cannot be left off the table. It is necessary to be open-minded about the technologies with an eye on unacceptable ancillary impacts, and a focus on the results desired.*
- *Adopting and adapting better farming practices: The best producers globally are 100 times better than the worst. The best countries are 10 times better than the worst. To achieve global food security and maintain the planet, far more can be gained in producing food and reducing environmental impacts by pushing the middle and the bottom performing farmers and their practices to a better performance level.*
- *Optimising technology: All inputs (water, fertiliser, pesticides, and energy) must be used more efficiently. An achievable goal can be to triple or quadruple the efficiency of input use in many situations.*
- *Bringing back to use degraded land: Of the 4.9 billion hectares of land used for agricultural purposes worldwide, close to one-third is suited to annual or permanent crops; over two-thirds are allocated to permanent meadows or pasture. Instead of expanding cultivable land into new areas to farm, it is possible and necessary to rehabilitate degraded or under-performing lands applying technology and science, skills and knowledge of people, and better management. Total degraded land, depending on criteria applied, is estimated to be between 200 million to 2 billion hectares. Rehabilitation of even a small proportion for agriculture can make a big difference. The goal of 100 million hectares rehabilitated by 2030 and 250 million by 2050 is considered feasible, if this is given priority.*
- *Land tenure and property right: Farmers will not plant a tree or invest in sustainability if they do not*

*own the land. It is necessary to pursue strategies that address these issues.*

- *Preventing and managing losses and wastes of food: Globally as much as 30 to 40 percent of all food produced is wasted. The goal should be to cut waste in half in both developing and developed countries. It is necessary to invest substantially in reducing post-harvest losses and food waste including development of skills, creation of jobs and enhancement of management capacities.*
- *Balanced consumption: A billion people don't have enough food while another billion eat too much. A reasonable goal would be not only to freeze these figures, so they do not increase, but to reverse these, ideally cutting each by half by 2030.*
- *Enhancing viability of food production with carbon trading: Developing and participating in carbon markets that allow food producers to sell the carbon credits under international climate protocols, will make food production more sustainable and profitable (see below).*

### Skill and capacity needs for food security and agricultural development

Many of the areas of skills and capacities, while dependent on prerequisites of varying levels of formal education and training, need to be further developed, maintained and effectively put to use through a range of non-formal education and capacity building unities.

#### *Learning, knowledge and skills network within the framework of lifelong learning*

The argument for a central position of the knowledge network and lifelong learning in the national development agenda is well recognised. This challenge in fulfilling development priorities and aspiration of societies has to find a place in the curriculum, learning objectives, educational methodology, and in expanding learning opportunities for all in both rural and urban areas (Ahmed: 2009).

The developing world, particularly South Asia

There is no silver bullet for solving the multi-faceted challenges of ensuring food security for the world's growing population. An interdisciplinary approach, with a 2050 time horizon, suggests blocks of strategic actions...

...harnessing the science of genetics, adopting better farming practices, optimising technology, bringing back to use degraded land, improving land tenure and property rights, preventing losses and wastes of food, balanced consumption, and using the potential of carbon trading.

## Overview

Challenges and Policy Implications

South Asia and Sub-Saharan Africa have a high concentration of adult and youth illiterates, especially among women and marginalised groups. Effective programmes to fight poverty have to link literacy skills, production skills, quality of life components and ancillary support.

The multipurpose community learning centres with community ownership are effective when they become the base for offering a menu of relevant training and knowledge dissemination and for link-up with ancillary support.

A policy of affirmative action has to be followed to identify and serve the disadvantaged and marginalised sections of the population with activities that address their specific needs.

Gender issues need to be addressed both in respect of management structures as well as the pedagogical process.

and Sub-Saharan Africa, has a high concentration of adult and youth illiterates, especially among women and marginalised groups. Structural shifts in the economy from farming to non-farm activities, manufacturing and services and the need to acquire and upgrade skills for the competitive and rapidly changing labour market need to be key considerations in shaping social and individual goals for adult and continuing learning.

### *A multi-pronged approach to promote "critical literacy" and combat poverty*

Effective programmes to fight poverty have to link literacy skills, production skills, quality of life components and ancillary support. Skill training can lead to better earning only with ancillary support and creation of necessary conditions, such as access to credit, management advice, market information, and links with potential employers.

### *Networks of community learning centres as the vehicle*

The multipurpose community learning centres with community ownership, as seen in many countries, are effective when they become the base for offering a menu of relevant training and knowledge dissemination and for link-up with ancillary support.

### *Affirmative action in education to address inequality*

A policy of affirmative action has to be followed to identify and serve the disadvantaged and marginalised sections of the population with activities that address their specific needs. An overarching strategic principle for adult and lifelong learning has to be to design programmes and set priorities to play a role in overcoming the inequalities in learning opportunities.

### *High priority to overcoming gender injustice and disparity*

Patriarchal values and culture continue to dominate causing many forms of overt and subtle

gender injustice and discrimination. Gender issues need to be addressed both in respect of management structures as well as pedagogical aspects. Special attention is needed to ensure that a higher proportion of women than at present are in management, supervisory roles, and as trainers.

### *Disadvantaged and neglected groups*

Ethnic and linguistic minorities, indigenous people, the ultra-poor, and people with disabilities and special needs continue largely to be outside most education and training programmes and are difficult to reach. In addition to making all mainstream programmes more inclusive, specialised and more directly targeted projects would be required for these groups. Mobilisation and awareness raising efforts need to be directed specifically to overcoming traditional attitudes regarding gender, disabilities and ethnic, cultural, and religious differences.

## Turning skills into jobs for food security

The mismatch between skills and jobs, how demand and supply of skills and jobs relate to each other, is a ubiquitous and complex question. Development of skills does not by itself create the jobs where the skills would be used and, jobs do not necessarily prompt or cause efficient development of appropriate and relevant skills.

In making the right choices regarding change in specific national and local contexts the sustainable livelihood approach (SLA) mentioned above (see Chapter 2) would be a useful framework.

## 4. Skills and Jobs for a Green Future

Climate change affects the poor disproportionately and has far-reaching consequences for agricultural and rural development. As a major source of greenhouse gas (GHG) emissions, agriculture also has huge potential to reduce emissions through reduced deforestation and changes in land use and agricultural practices.

Effects of climate change make poor people the first victims and the greatest sufferers of environmental degradation. The rural poor are more vulnerable than others to environmental hazards and environment-related conflicts of interest and least able to cope with them when they occur. They also tend to be most dependent on the natural environment and direct use of natural resources, and are therefore most severely affected by environmental degradation and lack of access to natural resources.

On an operational level, the concept and practice of sustainable development must be focused on the fight against poverty, especially rural poverty in developing countries, given its preponderance in these countries. The discourse on sustainable development and ways of enhancing skills and capacities of people points to at least three key concerns. These merit attention in shaping an integrated approach in education, training and relevant supportive strategies. These three concerns are: (i) social marginalisation and disparity and claiming a stake for all in economic and social development; (ii) coping with the feminisation of poverty; and (iii) promoting sustainable production and consumption for all, not just the poor, in the context of poverty reduction (Ahmed: 2010).

The high reliance on agricultural production, for both food and income, of rural people in developing countries intensify the negative effects of climate change. The change in the patterns of the monsoon due to increases in global temperature will have detrimental effects on agricultural production and people's livelihood. Countries such as Brasil and Egypt will be affected by decreasing precipitation, putting pressure on dwindling water resources, thus inhibiting agricultural production. Many countries such as Bangladesh, Brasil and the Philippines already suffer from droughts and floods simultaneously, in different parts of the country or at different times of the year; these effects are likely to be further aggravated by climate change. Competition between land use for food and biofuel production has consequences for food security and employment pattern, which calls for careful balancing.

An investigation carried out by ILO and European Centre for the Development of Vocational Training (Cedefop) in 21 less and more developed countries examined level of awareness and national positions about climate change impact and priorities. The countries represented 60 percent of the world population and about the same proportion of global GDP and were responsible for about half of global CO<sub>2</sub> emissions.

National study teams in the 21 countries focused on general issues of the green economy, rather than the rural economy and the agriculture sector. A number of points, highlighted by these statements, merits attention.

- *The majority of the people living in the rural areas, dependent on agriculture for employment and livelihood, will bear the brunt of the negative consequences of climate change. Yet the recognition of the impact on agriculture and rural people are uneven at best, and barely noted, in some cases. There is a focus on carbon emissions as the problem, which is ultimately a major source of the problem and the solution. But this appears to have distracted attention from the real and immediate impact on lives of hundreds of millions of people by the proximate effects of climate change manifested in pressure on land and water and weather volatility.*
- *Both the numbers in the workforce and the place of the rural economy within the national economy in the developing countries, albeit it is changing, offer possibilities that remain unexplored for adaptation to climate change, mitigation of the consequences, and indeed the possibilities of preventing some of the negative effects.*
- *In many instances, even when the impacts and the need for action are recognised and policy and goals for transition to the green economy are stated, actual progress in implementation and the political will and social mobilisation of support are insufficient. Capacities and relevant skills for the transition to the green economy at different levels, overall and particularly in the rural communities, are a major constraint in most countries.*

Development of skills does not by itself create jobs, and jobs do not necessarily prompt development of appropriate skills.

Effects of climate change make poor people the first victims and the greatest sufferers of environmental degradation.

The concept and practice of sustainable development must be focused on the fight against rural poverty in developing countries.

Three key elements in sustainable development and enhancing skills and capacities of people must receive attention: (i) claiming a stake for the marginalised in development; (ii) coping with feminisation of poverty; and (iii) sustainable production and consumption for all, not just for the poor.

## Overview

Challenges and Policy Implications

Agriculture is the main user of land and water, a major source of greenhouse gas emissions (GHG), the main cause of human-induced conversion of natural ecosystems and the loss of biodiversity.

Agriculture is also the entry point for interventions in environmental protection. The "environmental footprint" of agriculture means many avenues for environmental action.

Transition to a greener economy focusing on agriculture and rural areas has to be part of broader long-term structural change in the economy.

Transition to green economy requires an integrated view of urban and rural areas, with special attention to agriculture and related activities, rural areas, and rural people, since they are the ones most affected and they also can contribute to the solutions.

### Sustainability issues in agriculture and rural economy

There is a general agreement, at least rhetorically, since the Rio Earth Summit in 1992, that the agriculture and environment agendas are inseparable. The web of interconnection between the degradation of natural resources, undermining of agricultural production, continuing unsustainable use of natural resources, and increased vulnerability to risk of people requires that an integrated view is taken of agricultural and rural development and responses to climate change.

*Agriculture is the main user of land and water, a major source of greenhouse gas emissions (GHG), the main cause of human-induced conversion of natural ecosystems and the loss of biodiversity. The sector with the highest worldwide greenhouse gas emissions, which threaten the temperature balance of the planet, is energy generation. It releases over a quarter of total emissions (26 percent), followed by manufacturing at 19 percent. Agriculture accounts for around 14 percent emissions globally, but combined with forestry (17 percent), they add up to almost one-third of total global emissions (International Energy Agency: 2008).*

*In developing countries, agriculture is also the entry point for interventions in environmental protection. The large "environmental footprint" of agriculture also means that there are many avenues for environmental action in this area. Long-term support and capacity-building to improve natural resource management and coping with increased climate risks have to be a priority. Strategies and actions have to give due importance to agriculture and forestry in adapting to climate change and mitigating their negative effects (World Bank: 2008, p.199).*

#### Adapting to and mitigating the effects

*Even if emissions of GHG are stabilised at current levels or reduced somewhat, adaptation of agricultural practices is urgent because the developing countries are already subject to many adverse effects in varying degree.*

Farmers in many countries are already adapting and are ready to do so, when the support and incentives are available. A survey of practices in 11 African countries show that farmers are planting different varieties of the same crop, changing the planting calendar, and modifying practices to adapt to a shorter growing season.

Developing countries are responsible for about 80 percent of global emissions of GHG from agriculture in contrast to emissions from fossil fuel use and industry, for which the richer countries bear the main burden of responsibility. Agriculture in developing countries is also a major contributor to reduction in natural carbon sequestration or storage (thus reducing emissions) in soil, pastures and forests (World Bank: 2008, "Focus F").

#### Broader economic and social adjustments

*Transition to a greener economy focusing on agriculture and rural areas has to be part of broader long-term structural change in the economy. Socially responsible restructuring measures have to be adopted which do not punish further the poor and the disadvantaged in rural and urban areas. The costs of adjustments and how these are shared recognising prevailing inequalities and disparities have to be examined and public understanding and consensus has to be developed about policies.*

#### Green transition and stages of development

*There is a strong relationship between the stages of development and the progress of green structural change as illustrated by the scope and pace of transition to the green economy among countries (ILO: 2011b; Table 4.1).*

*In short, the priority for transition to a green economy is to combat climate change and environmental degradation and remove their negative environmental, economic and social impacts. This transition requires an integrated view of urban and rural areas, with a special attention to agriculture and related economic activities, rural areas, and rural people, if only because they constitute the majority who are affected and they*



also can contribute to the solutions. Many developing countries, in spite of having formulated policies, laws and regulations, falter in implementation and fall short in developing skills and capacities that are demanded by the green economy and green employment.

Broadly speaking, the changing natural environment imposes greater demands on adaptation and the built environment creates a strong demand for mitigation measures. As the changing physical environment tends to loom larger in developing countries, especially in the rural areas, the relative importance of adaptation skills is correspondingly greater there than in the developed world (ILO: 2011b, p.12).

### **Promoting the second generation green revolution**

A major challenge is how the original green (meaning agricultural) revolution begun in the 1960s can be turned green in terms of environmental sustainability. Supported by macro policies for greening agriculture and rural and national economies, research and knowledge dissemination, and skills and capacity building, have to be directed to exploring the elements of a second generation "green" revolution and applying these in broad-ranging rural transformation in developing countries.

### **Promoting skills and jobs for the green rural transformation**

**What are "green skills"?** A body of literature has developed on defining and determining green jobs and green skills. The following is a list that enumerates essential skills necessary for green jobs mentioned in the country cases in the skills for green jobs study.

- Strategic and leadership skills to enable policy-makers and business executives to set the right incentives and create conditions conducive to cleaner production, transportation, marketing, etc.;
- Adaptability and transferability of skills to enable workers to learn and apply the new technologies and processes required to green their jobs;
- Environmental awareness and willingness to learn

about sustainable development;

- Coordination, management and business skills to facilitate holistic and interdisciplinary approaches incorporating economic, social and ecological objectives;
- Systems and risk analysis skills to assess, interpret and understand both the need for change and the measures required;
- Entrepreneurial skills to seize the opportunities of low-carbon technologies;
- Innovation skills to identify opportunities and create new strategies to respond to green challenges;
- Communication and negotiation skills to discuss conflicting interests in complex contexts;
- Marketing skills to promote greener products and services;
- Consulting skills to advise consumers about green solutions and to spread the use of green technologies; and
- Networking, IT and language skills to perform in global markets (ILO: 2011b, p.107).

### **Core, generic and portable skills**

In addition to essential skills mentioned above, certain core skills at a basic level are central in coping with changing economies. These include knowing how to learn, how to work in teams and how to communicate effectively, which need to be learned at a young age through participation in good quality basic general education. Language skills are critically important in accessing knowledge related to environmental change. These basic knowledge and skills can be considered as "portable skills" which are useful whatever occupation one enters or whatever further training or education one moves into (ibid.; see Chapter 5).

### **Policy challenge in relating environment and skills issues**

The coordination of skills policies and environmental policies is a critical issue in the transition to green economy and employment. Coherence of policies and the links between related policy arenas have many facets and are highly contextual.

In addition to specific skills related to "green" jobs, core skills at a basic level are central in coping with changing economies – knowing how to learn, how to work in teams and how to communicate effectively, which are learned at a young age. These "portable skills" are useful in whatever occupation one enters or whatever further training or education one moves into.

## Overview

Challenges and Policy Implications

Many developing countries have attempted to articulate environmental policies and have grappled with policy priorities and strategies in skills development, but the two often have continued on parallel tracks.

Three policy-related difficulties confront countries in moving to a low-carbon economy: (i) lack of enforcement of environmental regulations already adopted; (ii) limited awareness and capacities of policy-makers to integrate skills into responses to environmental risks; and (iii) mechanisms for identifying and monitoring skills leave out environment agencies; education and training agencies also are not involved in developing environmental policies.

Responses from the developing countries on policy development in respect of the challenges of climate change, job creation, and link between the two, fall into three categories:

- *Sound and comprehensive policies* in countries where policies for the environment and/or skills are internally sound and comprehensive but not always well aligned. A number of countries have been relatively successful in developing sound environmental policies, but without fully coordinated skills policy measures to accompany them. Thus an overall coherent and holistic approach is lacking.
- *Fragmented policies* in countries where policies for both the environment and skills are weak and not well aligned. The countries that belong to this group have developed a number of environmental and skill policy initiatives, but in the absence of a general coordinating framework have not achieved policy coherence between the two; and
- *Policies under development* in countries that do not quite have either a well-developed environmental policy or skills development policy for a greener economy. The majority of developing countries fall into this group, as determined by country case information analysed in the ILO study. International initiatives in the environmental field have been of benefit to the countries in considering strategies, but they generally lack implementation mechanisms, including implementation of skills development to improve the capacity for greening the economy. Their policies and plans reflect weaknesses both in environment and skills areas and in links between the two.

In short, among the developing countries, most have attempted to articulate environmental policies and many have grappled with policy priorities and strategies in skills development, but the two often have continued on parallel tracks without an intersection of the two.

*Overall, three broad policy-related difficulties confronting countries in their attempts to move to a low-carbon economy can be identified.*

*Lack of enforcement of environmental regulations, sometimes with related legislation, already adopted. Weak enforcement of environmental laws and consequently lax implementation reduces the demand for the new skills needed to comply with them.*

*Limited awareness and capacities of policy-makers to integrate a skill dimension into policy responses to manage environmental risks. Most of the documentation on adaptation and mitigation measures, policies, strategies, action plans and programmes initiated in response to climate change and environmental degradation refers only very briefly to the skills implications of these measures, and mostly lack any skills response component.*

*Mechanisms established for identifying, monitoring, anticipating and providing skills do not usually include representation from environment ministries. Similarly, ministries, agencies and institutions concerned with education and training are mostly not involved in developing environmental policies (ILO: 2011b).*

### **The informal economy**

*The large size of the informal economy in developing countries indicates that measures to restructure the economy and skills training mainly in the organised sectors may leave large proportions of the people, especially in rural areas, without access to the skills development and new job opportunities. The organised sectors of the economy lend themselves to policy and regulatory interventions somewhat more easily than the dispersed informal economic activities. Quantitative estimates are hard to come by, but it can be reasonably assumed that there is large overlap between informal sector work and rural employment.*

### **Some specific measures in agriculture, forestry and livestock**

Restructuring in agriculture is happening in a great variety of ways. Most of the country case studies

indicate that many farmers are repositioning themselves both within the sector and in other sectors, prompted by the inability to make enough profit to live on from agriculture, the development of machinery and technology, and climate change.

### **Enhancing effectiveness of skill training**

*Most countries agree, according to country cases in the ILO study, that short, intensive vocational training courses, tailored to the specific needs of employers, are the most effective way of delivering retraining for specific new job opportunities. Such re-training has to occur locally, in rural areas, if this is where the jobs are. Ideally, it should not detach participants from existing work or from the job market (ILO: 2011b).*

### **Anticipating and projecting green skills and green jobs**

*A standard and agreed definition and statistically countable categories of green jobs and related skills do not exist. This creates difficulties in measuring green jobs and skills and placing these into occupational and industrial classification systems. Countries which have developed and established systems for the identification of skill needs and collect labour market information through labour market information systems (LMIS) enjoy a head-start (ILO: 2011b).*

### **Some specialised green skills**

*The International Standard Classification of Occupations (ISCO), last updated in 2008, classifies skill specialisation in terms of four conceptual areas: (i) the field of knowledge required; (ii) the tools and machinery used; (iii) the materials worked on or with; and (iv) the kind of goods and services produced (Greenwood: 2008). Whether entirely new occupational categories need to emerge or some re-definition of the character or features of existing occupations will suffice depend on the degree of change in the skill composition of occupations when economies go through the green transition.*

*Recent research including the ILO study, particularly the country cases, suggests some new combination of specialised skills which need to be given attention in*

*promoting the green transition especially in the context of rural transformation.*

### **Carbon financing specialists**

Flexible mechanisms introduced in the Kyoto Protocol included international carbon trading, which led to a number of new green occupations. This specialised skill is particularly important for the rural economy and the agricultural sector where major potentials exist for carbon sequestration in forests and land making new rural economic activities potentially viable.

### **Researchers at university level**

Crop varieties have to be developed and introduced that can withstand the vagaries of climate change. Demand for soil scientists, plant and animal breeders, and pathologists will rise. Most researchers in agriculture have to be multidisciplinary. The scientists have to be supported by agricultural technicians for field level experimentation and trial of crop diversification and the application of improved machinery to reduce energy consumption and GHG emissions.

### **Irrigation specialists**

They will be in demand to identify appropriate irrigation technologies that improve water conservation, conduct market studies to ensure the technologies are applied effectively, and impart skills in using and maintaining the technology to end users. This is particularly important as climate change and variability increase water scarcity.

*Agricultural meteorology* is a new occupation created in response to increasing weather variability. These professionals apply meteorological information to enhance crop yields and reduce crop losses caused by adverse weather.

*Eco-adviser in agriculture* for sustainable development and eco-certification is another emerging occupation. These experts advise farms of all sizes from agribusinesses to smallholders in sustainable practices and existing certification mechanisms and standards.

**Restructuring the economy in the organised sectors leaves large proportions of the people, in rural areas without access to skills development and new job opportunities. There is large overlap between informal sector work and rural employment.**

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### *Renewable energy specialists*

This sector represents the most dynamic labour market segment for newly emerging green occupations, such as, renewable energy engineers, consultants, auditors, quality controllers, and installation and maintenance technicians.

### *Education and training specialists*

The education and training sector is of critical importance in the green transition, disseminating basic knowledge about environmental changes and influencing the behaviour of people in matters of environmental sustainability. Teaching and training personnel in all education systems and at all levels need command of the necessary skills and methods to impart environmental knowledge, to create awareness and to react flexibly to ever-changing labour market needs. But developing countries have insufficient numbers of well-trained teachers and trainers to satisfy the need to update the skills of large and growing workforces, including a need to incorporate environmental course content and update curricula in primary, secondary, tertiary and adult education training.

Programmes and strategies for skills development can be effective, when they are nested in a supportive environment of broader development goals and policy which are consistent with the aims of rural transformation and rural poverty reduction.

Countries which have gone further in reducing poverty and improving well-being of their people are those where labour force has moved from agriculture to diversified economic activities in manufacturing and services.

## **5. Roles and Responsibilities: A Framework for Action**

It is clear that skills development is a critical component of the total effort to bring about rural transformation, but it is not sufficient by itself. The programmes and strategies for skills development can be effective, when they are nested in a supportive environment of broader development goals and policy which accord a high priority to and are consistent with the aims of rural transformation and rural poverty reduction.

The premises underlying goals of rural transformation and poverty reduction logically direct attention to a number of contextual factors intimately intertwined with these goals, such as, structural changes in the economy which are consistent with rural transformation objectives, a regional planning and development perspective, environment for

economic activities and expanded opportunities for enterprises in rural areas, social protection and safety net policies, and governance issues.

## **Structural change in economies**

Historically, economic development has meant structural change in national economies of countries in terms of the contribution of the major sectors of the economy (agriculture, industries and services) to the total productive output of the country (GDP) and the proportion of the working population employed in the major sectors. Countries which have gone further in reducing poverty and improving the well-being of their people are those where the labour force has moved from agriculture to more diversified economic activities in agricultural processing, manufacturing and services. There has been a spatial or geographical change manifested in urbanisation and increase in job opportunities in towns and cities away from villages, as well as, a sectoral movement of workers away from farming to off-farm, manufacturing and services activities (McMillan and Rodrik: 2011).

*The implications of the shifts in the structure of the economy, especially relevant from the point of view of the rural transformation goal, are that:*

- *A progressive and relatively rapid decrease can happen in the proportions and total numbers of the workforce in agriculture, while improving at the same time total output from agriculture, thus increasing productivity dramatically per unit of labour input as well as per unit of finite and scarce land.*
- *There can be a movement of the work force in rural areas from farming to off-farm, manufacturing and services activities, with creation of some of these economic opportunities in rural areas themselves, in a context of overall expansion of these non-agricultural activities within countries and beyond the borders of countries, in the era of globalisation.*
- *Increases can occur in mobility of working people*

and those eligible for work in rural areas both spatially and sectorally. Spatial mobility of workers may be within rural areas, to peri-urban areas, rural hubs and small towns, and larger cities, with some of the movements in the reverse direction. Sectoral mobility may be from farming to off-farm processing, services related to modernising and diversifying agriculture, livestock, forestry and infrastructure building, and expansion of some of the urban services to rural areas.

One area of sectoral expansion possibility is education and skills development with expanded scope and variety of education and skills development activities in rural areas, small towns and rural hubs (central rural locations where services and infrastructures are located to serve a group of rural communities).

### Rural-urban linkages and regional development planning

Rural and urban areas are in reality interconnected through a constant movement of people, goods, capital, ideas and information. The complex web of flows and exchanges has made rural and urban areas dependent on each other. The trend is accelerating in many parts of the developing world as a result of better transport and communications, rural-urban and return migration, the dissemination of urban norms and values in the rural areas, and the spread of urban economic activities in the rural areas (rural industrialisation and spread of basic amenities) and of rural economic activities in the urban areas (such as urban agriculture).

The persistent and growing disparities in levels of income, economic opportunities, and quality of life between the rural majority and the urban minority have lent a new urgency to an integrated approach. Economic liberalisation and opening of the global market have given an added impetus to look at the urban-rural connections in a new light. A deliberate blurring of the urban-rural distinction is being taken up as policy objective with supportive policies and strategies (ESCAP: 2001).

### Governance across and beyond the rural-urban boundary

If well managed, the interactions between towns and countryside can be the basis for a balanced regional development which is economically, socially and environmentally sustainable. The participatory, decentralised, and area-based approach that is a pre-requisite for integrated urban-rural planning logically accord the local government system a key role in facilitating positive interactions in the process.

In short, understanding rural-urban linkages, and creating mechanisms for planning and implementing the plans matter because they provide the basis for measures that can improve both urban and rural livelihoods and environments. Ignoring them means that important opportunities will be lost, and in many cases it will contribute to or perpetuate poor and marginal people's hardship. There are urban initiatives that can reduce ecological damage to rural areas, and help support regional development. Such initiatives are unlikely when separate and un-coordinated urban and rural development is the norm (DANIDA: 2000).

### Social protection and safety nets

A significant proportion of rural people in developing countries, whether they are engaged in agriculture or off-farm activities, face natural or man-made emergencies and/or are in a state of chronic hunger and deprivation which they cannot handle without assistance from the state. They need support to respond to the high level of risk and vulnerability and overcome the negative impact on livelihood. Assistance is necessary not just to provide relief and protect the well-being of people, but to help them move out of the vulnerability and restore their productive capacities. Ideally, the protection measures can be an investment in people which can produce longer-term payoffs and prevent the inter-generational transmission of poverty.

Vulnerability and the lack of social protection are manifestations of poverty and social exclusion of rural people. They are also obstacles to the development of

One area of sectoral expansion is education and skills development with expanded scope and variety of programmes in rural areas, small towns and rural hubs.

Persistent and growing disparities in income, economic opportunities, and quality of life between the rural majority and the urban minority make integrated approach especially urgent.

Vulnerability and the lack of social protection are manifestations of poverty and social exclusion of rural people. They are also obstacles to the development of capabilities and skills of young people and are hurdles to the access to productive employment.

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capabilities and skills development of young people and therefore are hurdles to the access to productive employment.

Another common description of social protection is social safety net – a net that prevents individuals and families from falling below defined levels of basic well-being. Social safety nets specifically emphasise non-contributory transfers targeting the poor and vulnerable in order to protect them from risks and severe poverty.

*In short, safety nets for social protection have four main objectives: (i) they aim to reduce poverty and inequality through the redistribution of resources; (ii) they function as insurance and help improve households' risk management capacity; (iii) they are expected to enable households to invest in human and physical capital, which advances long-term economic opportunities; and (iv) they can mitigate the negative consequences of difficult but needed socio-economic reforms (World Bank: 2011).*

*Main types of social safety net interventions are:*

- *Unconditional transfers in cash and in kind: Unconditional, but usually means-tested, cash transfers aim to lift poor and vulnerable households out of poverty or protect them from falling into poverty due to a crisis or some economic reform measures.*
- *Income-generating programmes: Workfare (or public work) typically employs low-skilled workers in labour-intensive jobs constructing or maintaining public infrastructure projects. If well-designed, these programmes can make public spending more cost effective. The participants may be paid in cash (cash for work) or in-kind (food for work).*
- *Programmes promoting and protecting human capital: They have two explicit goals – to reduce current poverty and to promote investments by the poor in their human capital in order to increase the standards of living in the future. To encourage investments in education, they require that households enrol their children in school and that the majority of children attend regularly classes.*

Experience of social protection measures in developing countries illustrates the scope and pattern of these measures.

### **Labour market intervention**

Rural labour markets are often characterised by oversupply of labour, limited employment opportunities, and poor transport and communications that restrict movement of labour. Rural employment schemes have been used in several countries to address this problem, as in India, which aim to create employment opportunities through public works to build physical infrastructure.

### **Assisting the ultra-poor**

Poverty and exclusion in rural communities, as multi-dimensional phenomena, call for multi-faceted interventions. One example of a multi-dimensional social-assistance programme is the "Challenging the Frontiers of Poverty Reduction – Targeting the Ultra Poor" (CFPR-TUP) programme of BRAC, a large Bangladesh development NGO.

### **Health and safety of workers**

ILO estimates that up to 170,000 agricultural workers are killed each year and millions are seriously injured in accidents involving agricultural machinery, pesticides and other agrochemicals. Protecting rural workers from hazards in work place must be an important element of social protection.

There is no single blueprint for social protection and application of safety nets. No one instrument can provide a magic bullet. The options are diverse and policy-makers have choices, as seen above. Policies, objectives and a combination of programme actions need to be designed by focusing on dominant problems and feasibility of effective implementation. There are regional patterns which have evolved over time which provide useful lessons about options and their efficacy in different contexts. In Latin America the emphasis has been on support to human capital building through conditional cash transfers and social pensions. In South Asia and Africa, the focus is on more immediate

**There is no single blueprint for social protection and application of safety nets. Main types of social safety net interventions are: unconditional transfers in cash and kind, income-generating programmes, and programmes promoting and protecting human capital.**

vulnerabilities of people through a variety of social protection interventions aiming at food security of households and a minimum income protection through public works (Hickey: 2007).

## Role of microcredit and social business

### Microcredit

Microcredit refers to very small loans given to poor people to help them start an economic activity that can provide gainful employment and an income to the creditor and thus, if the activity is sufficiently profitable, lift the creditor out of poverty. Microcredit institutions fill the gap between private money-lenders and commercial banks by offering small collateral-free loans to the poor, the large majority of whom are poor rural women; thus generating employment and income for them. Equally significant is the spurring of entrepreneurship, change in gender attitudes and expansion of choices in life for poor people (Yunus: 2003).

*The key lesson from microcredit experience is that it provides a critical ingredient for poverty reduction by allowing poor people, especially women, access to credit. However, the goal of lifting poor families sustainably above the poverty line can happen on a substantial scale when access to microcredit is complemented by skills and capacity development and basic services such as health care.*

### Social Business

The concept of social business, which is gaining acceptance as a way of combining entrepreneurship and altruistic spirit of people, can be regarded as an important complement to microcredit in the arsenal of fighting poverty, creating employment and income opportunities, while meeting specific social needs.

*In simple terms, a social business is a no-loss, no-dividend company dedicated entirely to achieving a social goal. In social business, the investor gets his/her investment money back over time, but does not receive dividend beyond that amount. The Grameen*

*Bank is a prime example of social business, with the Grameen borrowers themselves being its shareholders. A social business can also be mainly a profit-making enterprise, as long as it is owned collectively by the poor for their benefit and profit maximisation does not undermine social objectives (Yunus: 2010).*

*The seven principles of social business, as articulated by its proponents, are :*

- *The business objective will be to overcome poverty, or one or more problems (such as education, health, technology access, and environment) which threaten people and society; not profit maximisation.*
- *Financial and economic sustainability have to be ensured.*
- *Investors get back their investment amount only. No dividend is given beyond investment money.*
- *When investment amount is paid back, company profit stays with the company for expansion and improvement of the business.*
- *The business must be environmentally conscious.*
- *Workforce gets market wage with better working conditions.*
- *It has to be done with joy (Yunus: 2010).*

A creative combination of microcredit, as well as capital from the financial market, especially for small and medium size enterprises, and social business enterprises are emerging in many parts of the world. Social needs, especially of the disadvantaged people, in such areas as health care, education, renewable energy, waste management, food and nutrition, housing, and water and sanitation, are the concerns of social businesses. They are demonstrating ways of creating employment and generating income for rural people. They are doing so, while introducing new technologies and mobilising people's energy and creativity to address critical needs of society.

**Microcredit fills the gap between private money-lenders and commercial banks by offering small collateral-free loans to the poor, mostly rural women; generates employment and income for them; spurs entrepreneurship; changes gender attitudes and expands choices in life for poor people.**

**A social business is a no-loss, no-dividend company dedicated to achieving a social goal. It can also be profit-making, if it is owned collectively by the poor and profit maximisation does not undermine social objectives.**

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In human life cycle, childhood, adolescence and early youth are when people develop capacities to prepare themselves for the world of work and for life.

The potentially virtuous outcomes depend on what is done to overcome the neglect of education and skills development for rural people.

Priority areas of action to expand basic education with equity and quality – more schools and classrooms in rural areas...completing basic education by girls...school-feeding...early childhood development and preschool... alternatives for working children...illiterate adults and parents...remote residents...nomadic people...refugees and the internally displaced...people with disabilities.

### Priorities in education and skills development for rural transformation

In human life cycle, childhood, adolescence and early youth are the stages when people acquire knowledge and skills and develop capacities that prepare them for the world of work and for roles and responsibilities as citizens, members of their communities, members of their families, and fulfilment as a person. The learning process turns the population into human resources and can permit the rural areas of developing countries to enjoy the benefits of the demographic dividend – the premium from a youthful work force and relatively low dependency ratio of post-working age population.

The potentially virtuous outcomes depend on what is done to overcome the neglect of the education and skills development provisions for rural people. The needs consist of various stages and types ranging from early childhood development and basic education, secondary and tertiary general education, vocational and technical skills development and life-long learning opportunities.

#### Basic education

Basic education, as it is generally understood, includes early childhood development and preschool, formal and non-formal equivalent of primary education, and literacy and continuing adult education programmes. Given that large urban-rural disparities continue in many developing countries regarding basic education services, expanding and improving these services are an obvious priority. Some 70 million children of primary school age, mostly from rural areas are still not at school (UNESCO-GMR: 2010).

The FAO-UNESCO Education for Rural People partnership project has emphasised priority areas of action to expand the provision of basic education with greater equity and improved quality, as indicated below.

- Constructing more primary schools and classrooms in rural areas where facilities are still not within a reasonable distance from children's home.

- Making primary education compulsory and universal effectively: Even though the law and the obligations have been stated officially, in many instances the measures to enforce the law and create the conditions for doing so are lacking, even though this is a prerequisite for achieving EFA.
- Increasing school enrolment and completion of basic education of girls: Progress has been made in respect of initial enrolment, though even this is a significant problem in many countries; but dropout and the failure to complete the stage with acceptable learning achievement, thus leading to "silent exclusion" are serious and not fully quantified problems in many more countries.
- School-feeding programmes: A full school day with the child alert and engaged in learning requires a mid-day meal, as has been demonstrated in many countries.
- Early childhood development and preschool programme: Which is essential to ensure that the child is physically and mentally ready to learn and participate in school, especially for children affected by socio-economic disadvantages.
- Working children: Extreme poverty forcing children to engage in child labour, is a major obstacle to these children's participation in both urban slums and in rural areas; alternative and flexible approaches are required to address this situation.
- Illiterate adults and parents: A problem in itself, but also a serious hurdle to children's basic education when illiterate parents cannot provide the supportive environment and guidance to their children.
- Remote rural people: Geographical and communication barriers often coincide with ecological and economic disadvantage, leading to poor or non-existent basic services, unless special steps and strategies are adopted to reach out to the unserved people.
- Nomadic peoples: Educational services for itinerant people, not living in a settled community, but mostly dependent on rural habitat and livelihood, need educational services, which have to be adapted in delivery and content for their special circumstances.



- *Refugees and internally displaced people: Conflicts and emergencies of different kinds affect significant numbers in many parts of the world; the phases of emergencies, rehabilitation, and restoration of a more normal conditions place special demands on educational services.*
- *Children and adults with disabilities: A significant proportion of the population need to be identified and their circumstances and characteristics assessed, who need special services which are preferably offered within the mainstream system, and when necessary, through special provisions (Acker and Gasperini: 2009; Lakin and Gasperini: 2003, pp.77-174).*

### **Secondary and vocational Education**

As primary education becomes universal, the urgency has increased for meeting the expanding demand for secondary education, especially in the rural areas. In gross terms, 40 percent of the children in developing countries did not enrol in secondary schools in mid 2000s. The proportions are about sixty percent in Sub-Saharan Africa and 50 percent in South Asia (UNESCO-GMR: 2010).

It is now widely accepted that general primary and secondary education is the foundation upon which young people, whether they live in cities or rural villages, will build their livelihoods and acquire the vocational and technical knowledge and skills that they need to take advantage of the new opportunities. Quality general secondary education is necessary to equip rural youth with generic skills and competencies essential for taking advantage of job-specific vocational and technical training opportunities in a changing and globalising labour market. It is also necessary not to foreclose for rural youth the possibilities of further education, seeking opportunities in urban and peri-urban labour market, or venturing into entrepreneurship.

Should rural high schools be different from those in cities in respect of the curricular content and learning objectives? It is a question, as discussed in chapter 2, of a pragmatic balance between

general and generic competencies for young people through post-basic general education and different levels of specialised technical and occupational skills separately or in combination with general education.

The special features of the rural economy, characterised by informality and a work force with relatively low level of formal education attainment, call for approaches that are geared to these rural circumstances. An effective approach to meeting skills needs of practicing farmers through what has come to be known as the Farmer Field School, advocated by FAO, has been adopted in several developing countries. Effective techniques for off-farm skills development for young people in rural areas continue to be a major challenge. Brazil, a pioneer in organised apprenticeship as a major skills development method, has also developed and applied widely an apprenticeship programme for the rural areas known as SENAR, which has broad relevance in developing countries.

*The need for breaking away from livelihood dependence on farming, opening the door for new opportunities for rural youth, and increasing their chances for transition to tertiary education have appropriately resulted in attention to the development of primary and general secondary education. In this process, arguably, the need to improve the labour market relevance of vocational education and training in the rural economy has received inadequate attention; and tension has arisen in striking a balance between developing generic competencies and occupation-related skills development that does not unjustly limit life prospects for young people in rural areas.*

### **Tertiary education from a rural perspective**

Given the multiple dimensions of rural transformation and the broad range of knowledge, research and capacity building needs for this purpose, the contribution of higher education in this respect cannot be confined to higher agricultural education (HAE) alone. Universities are well positioned to use their resources to assist the public and private

**Quality general secondary education is necessary to equip rural youth with generic skills and competencies essential for taking advantage of job-specific vocational and technical training in a changing and globalising labour market.**

**A pragmatic balance has to be struck between general and generic competencies for young people through post-basic general education and different specialised technical and occupational skills – separately or in combination with general education.**

**Universities are well positioned to use their resources to assist public and private sectors to develop strategies to address problems of rural development.**

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The variety of roles of agricultural universities and other institutions of higher learning can be – academic programmes relevant to present and emerging needs of rural transformation... preparing professional and technical personnel including teachers and trainers... research and extension services... designing and implementing higher level and leadership training... technical assistance... technology adaptation.

Multi-purpose community learning centres with community ownership, brought together into networks for technical support, can be a vehicle for learning with impact on poverty; also can be building blocks for lifelong learning in the learning society.

sectors to develop strategies to address the problems of rural development. These resources include a range of educational programmes which contribute to the development of the country's human and physical capital. These also include the university's ability to coordinate and support research that improves the understanding of economic and community development issues, problems and opportunities.

*The variety of roles that universities and other institutions of higher learning including higher agricultural institutions can play includes:*

- *Education: Academic programmes that are relevant to present and emerging needs of higher level professional and technical personnel for rural transformation, including the teachers and trainers of middle level institutions, who absorb a large proportion of the higher education graduates.*
- *Research and extension services: Undertaking research on current trends, issues and challenges in rural development; providing agricultural extension services to farmers; need-based information services related to skills development, vocational training, employment, entrepreneurship, marketing of rural products, and value-added services like identification of user groups, innovators and entrepreneurs in various functional areas.*
- *Training: Contributing to design and implementation of capacity building and leadership development for middle level institutions; promotion of new livelihoods patterns, and supporting vocational and entrepreneurship skills development.*
- *Technical assistance: In such areas as designing curriculum and learning content of middle level institutions that are need-based and demand-driven; assisting local governments, industry councils and workers' organisations in such areas as establishing quality criteria and standards; assessment, monitoring and evaluation of skills development; assessing market demands and emerging trends; social protection and safety nets.*
- *Technology development: Identification and propagation of indigenous/local technologies;*

*technology transfer, improvement of rural products through intermediate technologies etc.*

### ***Life-long learning and building the learning society/community***

The concept of lifelong learning, leading to the creation of a "learning society" has been visualised and written about for several decades now. As discussed in chapter 2 and chapter 5, addressing the learning needs of the members of the rural community involves the entire gamut of educational services. The principal components of lifelong learning include the early childhood care and training of parents; mainstream and alternative primary school; second chance non-formal basic education; secondary general education; vocational and technical training; participation in extension services programmes; opportunities to participate in or interact with tertiary education programmes and institutions; adult literacy and continuing education; and access to library and reading room and community multi-media centre.

*The community learning centre (CLC), or continuing education centre (CEC) as it is called in India, can be an institutional base for lifelong learning, if it is designed and supported by national and local authorities to play this role. These also can represent a concrete form of decentralisation, when these centres have a high level of community participation in designing learning activities and their management. Where the local government institution is well developed, it can be involved in planning activities, management and mobilising resources for the centres. To function effectively a community-based centre must have technical support in designing programmes, training personnel, and evaluating the effectiveness of activities.*

*In short, multi-purpose community learning centres with community ownership can be an effective base for offering relevant training and knowledge dissemination and for link-up with ancillary support. These, brought together into national or regional networks for technical support, can be a vehicle for education and learning opportunities which have an impact on*

poverty, and also become the building blocks for life-long learning in the learning society (Ahmed: 2009).

## Turning skills into jobs

That skills are at the core of improving individuals' employment prospects, increasing productivity and growth in rural areas and enhancing workers' income is a basic premise underlying this report. But skills do not automatically or necessarily turn into gainful employment. The probing of the issues of skills development cannot ignore how skills lead to or may not lead to jobs. Insufficient demand for workers as well as mismatches between skills and available jobs while jobs remain unfilled are persistent problems manifested in high unemployment rates, especially among young people.

*The steps for linking skills and jobs are generic problems of the economy and the employment market which also affect rural areas and rural workers. While efforts have been made and some successes achieved in the organised sectors of employment in the formal economy, there have been few initiatives to adapt and apply these measures in the context of the rural areas and the informal job market. Experience in general in relation to linking skills and jobs suggests a number of measures which need to be taken, with necessary adaptation for the rural context, as noted below.*

- *Labour market information and matching services can work effectively when decentralised management allows regional and local offices to tailor programmes to the local job-seeking and employer communities; the central administration may retain responsibility for mobilising financial and technical resources, setting policy, and evaluations.*
- *Better outcomes can be expected in labour mobility and matching of skills and jobs with expansion of coverage of social protection of workers. This is a special problem area for the rural population, as discussed above. The lack of appropriate income protection systems and social insurance benefits in most developing countries, especially in rural areas, is a disincentive for workers' mobility between jobs.*

- *Employment information services work effectively when their design allows for providing incentives for both job-seekers and employers to join; integrating employment services with training and competency assessment; decentralising management and expanding the role of the private sector with clear targets; and exploiting information technologies.*

- *Job-search and placement can be facilitated through skills certification frameworks to recognise individual skills and competencies (the third step above), keeping in view current and emerging job opportunities in rural areas as well as urban areas in which the rural migrant workers can be absorbed. The skills certification system needs to include or be complemented by mechanisms for the certification or accreditation of training centres and programmes and apprenticeship schemes which cater to rural youth (World Bank: 2010).*

### **Skills and jobs within the sustainable livelihood framework**

*The linking of skills and jobs does not happen in a vacuum, isolated from all the forces at play in relation to rural transformation. As discussed in chapter 2, the concept of the sustainable livelihood approach (SLA) points to the bridging that must occur among various key assets to bring about the outcome of poverty reduction and contributing to rural transformation. Skills and capacities of people as human capital is one asset that must be put to work in synergy with other capital assets – physical, social, natural and financial – toward achieving the defined development objectives.*

As noted in chapter 2, central to the idea of SLA is the range of assets that poor people can or should be able to draw on and bring to bear on their own effort to change their condition. Skills, knowledge and ability constitute human capital. An integrated approach is necessary in making the different assets contribute to the common objectives of turning knowledge and skills into productive work, for improving people's lives.

**The generic problems of linking and matching skills and jobs are more complex in rural areas and the informal job market. Experience suggests some measures – decentralised locally adapted labour market information and matching services... expanded coverage of worker social protection... incentives for both job-seekers and employers to join in job information services.... skills certification frameworks to recognise competencies and skills equivalency.**

**Skills and capacities of people as human capital is one asset that must be put to work in synergy with other assets – physical, social, natural and financial – toward achieving the objectives.**

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The transforming society – rural, peri-urban and urban – creates demands for new kinds of jobs and old jobs with new profiles. This dynamic perspective of changing jobs, labour markets, and skills requirements must frame the interventions to match skills and jobs.

To serve rural transformation, flexible and autonomous structures at local levels adapting to local circumstances, encouraging participatory practices, and promoting transparency in governance are particularly important.

Stakeholders of rural development are many and diverse. Mobilising the poor to create and participate in their own organisations and institutions needs to be nurtured.

*Livelihood strategies are aimed at achieving livelihood outcomes, thus focusing on the most critical concerns and anxieties of poor people – a guarantee of food and shelter, basic services such as education for children and health care, and safety and security of life and livelihood. As discussed in chapter 2 as well as in chapters 3 and 4, in relation to food security and the green economy, the transforming society – rural, peri-urban and urban – creates demands for new kinds of jobs and old jobs with new profiles. It also generates commensurate needs for skills development. This broader and dynamic perspective of changing jobs, labour markets, and skills requirements needs to be kept in view in thinking about and planning labour market interventions and efforts to match skills and jobs.*

### Governance issues: creating institutions of the poor

Good governance is critical for successful efforts in skills and capacity development that can play its role in poverty reduction and rural transformation. Good governance itself is predicated upon building capacities and setting performance standards for the institutions and mechanisms of governance. In the context of rural transformation, flexible and relatively autonomous structures at local levels that adapt to local circumstances, encourage participatory practices, and promote accountability and transparency in governance processes are particularly important.

Mobilising the poor to create and participate in their own organisations and institutions needs to be nurtured by coordinated support from many sources. Government agencies, NGOs and civil society organisations, local self-governments, banks and corporate sector each has a role to play. With time, as the institutions of the poor grow and mature, their members and empowered leaders can take charge and accelerate the processes of change. Thus, the programme for the poor becomes the programme by the poor and of the poor. The challenge is to unleash their innate capabilities to generate meaningful livelihoods, which enable them to come out of poverty.

The stakeholders of rural development are often many and diverse – members of the community – men, women and youth; central and local government officials; health workers, teachers and extension workers; national, local and international NGO representatives; representatives of international programme funding agencies; community leaders; politicians at local and national level and others. The rural poor, especially women, youth, ethnic and other minorities, and people with disabilities and special needs often have no presence or no opportunity to voice their views in the stakeholders' forum, even when the development initiative is purported to be for their benefit.

A necessary initial step, therefore, is to raise awareness on the different options for addressing the plight of the rural poor through conducting inclusive dialogue forums involving all community-level stakeholders. The major objective of the dialogue will be to engage in analytical thinking and consultations on understanding and diagnosing the roots of problems and opportunities for practical interventions that lead to transforming changes in the rural economy.

### Skills for rural transformation – roles and responsibilities of stakeholders

#### *The government or the public sector*

*The government or the public sector at various levels from national to local, private-sector agencies and the end-users at the community and household level need to play their roles in carrying out the activities and programmes related to skills and capacity development for rural change and development.*

- *A decentralised “demand-driven” strategy can be more responsive to specific demands and potential of each locality. The local government institutions and local community organisations could establish a collaborative partnership in undertaking the responsibility for developing a local “vision” and strategy; designing/planning, allocating resources, and implementing and*

monitoring of development activities that would better cater to the local needs.

- *With a demand-driven and decentralised approach, and partnerships of stakeholders and key actors, the role of the central government would be more in the formulation of policies to facilitate the effective functioning of the roles assumed by other actors. With decentralisation, local governments will have to assume greater responsibilities and would become the focal centres for local development. Local governments have to be effectively linked with the national levels as well as with local communities (IFAD: 2007).*
- *For an integrated approach to rural development, local communities, where the beneficiaries/actors of development are, should themselves become organised to be actively involved in planning and managing development. To achieve sustainability, the challenge is to facilitate and institutionalise a process through which rural communities themselves would evolve local organisations to satisfy their own local needs (UN: 2009).*
- *The village Panchayat in India and the township and village governments in China are illustrative of the local government bodies that exist in many countries. While the stated intentions and even the legal provisions for setting up the local bodies reflect ideals of authority and responsibility of citizens at the community level, in practice political power relationships, limitations of resources, and technical skills and capacities at the local level have stood as obstacles to local government bodies fulfilling their stated roles and potentials.*
- *Effective utilisation of social capital can be singled out as the key role of local communities in respect of transformative change in rural areas. As a prerequisite for accumulation and the effective mobilisation of social capital, improving and upgrading the human capital is crucial. Developing skills of the individuals in a community enhances the quality and quantity of the output of social capital through collective action of the community.*

### **Rural private sector**

The rural private sector includes a continuum of economic agents, ranging from subsistence or smallholder farmers, rural wage-earners, livestock herders, small-scale traders and micro-entrepreneurs; to medium-sized, local private operators such as input suppliers, microfinance providers, transporters, agro-processors, commodity brokers and traders; to other, bigger market players that may or may not reside in rural areas, including local or international commodity buyers and sellers, multinational seed or fertiliser companies, commercial banks, agribusiness firms and supermarkets. Associations of farmers, herders, water users or traders also constitute an important part of the private sector (IFAD: 2007).

### **Promoting the role and responsibilities of the rural private sector**

- *Supporting the establishment of viable backward and forward linkages between rural producers and surrounding private markets.*
- *Supporting private-sector entities (e.g. input suppliers or agro-processors) that can provide commercially viable services and markets for the rural poor.*
- *Establishing an enabling policy and institutional framework for rural private-sector development.*
- *Engaging the private sector to bring more benefits and resources to the rural poor.*

### **Community organisations**

Community institutions, including, cooperatives, farmers'/people's companies, farmers' organisations, other types of people's associations, such as credit unions, savings societies, educational institutions, clubs, etc., are considered under the category of local community organisations.

### **Role and responsibilities – community organisations**

- *Administering and monitoring programmes and activities of stakeholders of rural development.*
- *Facilitating training of unemployed youth and*

**A necessary initial step is to raise awareness on different options for the rural poor through inclusive dialogue involving all stakeholders.**

**The government – the public sector – from national to local level, private-sector and others at the community and households need to play their roles.**

**Key public sector roles – encouraging a decentralised “demand-driven” strategy... partnership building... organising beneficiaries/actors... involving local government... utilising community social capital and further enhancing it.**

**Private sector role – forward and backward linkages of rural enterprises... providing commercial services and opening markets... promoting viable private sector activities in rural communities... bringing benefits and choices to rural consumers.**

## Overview

Challenges and Policy Implications

**Community organisations role – running or monitoring rural development activities... training... literacy and adult education... organising and promoting community learning centre network.**

**Civil society and NGO role – organising rural people... raising public awareness... facilitating skills development activities... raising social status of VET trainees – promoting competency standards... capacity building of local organisations – research and evaluation... bringing resources and cross-national lessons by international NGOs.**

*adults, upgrading the skills of farmers, introduction of new technologies.*

- *Raising awareness of literacy training (National Literacy Campaigns), promoting the introduction and use of appropriate technology for the rural community, helping organise short-term farming and vocational training and establishing Community Learning Centres (CLCs).*
- *Organising income generating and skills training programmes for illiterate individuals, individuals with some schooling and dropouts of the formal education system.*

### **Civil society and non-governmental organisations**

The civil society organisations (CSOs), when organised effectively, can help the vulnerable sections of society to be empowered, to defend their right and to enhance their quality of life. They can go where the government is not adequately reaching and the areas to which the government has not paid adequate attention. Their role is not to substitute the government, but to draw attention of the responsible agencies and to help the local people to be self-reliant.

- *Administering and monitoring programmes and activities of stakeholders of rural development.*
- *Facilitating training of unemployed youth and adults, upgrading the skills of farmers, introduction of new technologies.*
- *Raising awareness of literacy training (National Literacy Campaigns), promoting the introduction and use of appropriate technology for the rural community, help organising short-term farming and vocational training and establishing Community Learning Centres (CLCs).*

### **Role and responsibilities – civil society and non-governmental organisations**

*Civil society organisations (CSOs)*

- Organising rural people for self-help and being aware of rights and entitlements.
- Raising awareness about skill development

plans and activities among the public.

- Facilitating the implementation of skill development programmes of all stakeholders.
- Assisting the development of competency standards.
- Assisting in course designing, examination and certification.
- Promoting lifelong learning among the public.
- Promoting dignity of labour among the public and the status of VET trainees.
- Sharing experience of learning with others.

### **Non-governmental organisations (NGOs)**

*National NGOs*

- Organising literacy, post-literacy and out-of-school education programmes.
- Organising savings and credit groups.
- Organising income-generating programmes for poor people through skills training.
- Learning materials development and publication.
- Capacity building of local organisations.
- Organising seminars for awareness building among the community people.
- Monitoring grassroots organisations and service organisations.
- Organising training, seminars, workshops, meetings etc.
- Undertaking research and evaluation of development programmes.

*International NGOs*

- Providing funds in the field of education, specially non-formal education, and capacity building of rural disadvantaged groups.
- Support capacity building of local community organisation and civil society bodies for playing their roles effectively in a changing scenario.
- Bringing a perspective of international and comparative experiences and lessons and work in partnership with indigenous organisations and institutions to adapt and apply the lessons.

- Promote solidarity of the disadvantaged and the agenda of human rights, human dignity and development in the context of globalisation and the shared common future of humanity.

**Information and communication technology (ICT) and media**

Advances in ICT have opened new frontiers, not just in delivering learning content in new ways, but also in respect of new economic opportunities and in defining profiles of jobs and skills in every economic sector. In respect of skills development, some of the obvious areas of interest are delivering content in creative ways, reaching new groups of learners at a time and place of their own choice, enriching the teaching and learning process, improving management information and upgrading teaching personnel. The potential, however, is far from being realised in most countries in general and in rural areas in particular. The “digital divide”, between the rich and the poor and between urban and rural areas, is a major concern as ICT rapidly advances.

**Roles and responsibilities – information and communication technology (ICT) and media**

*Information and communication technology (ICT)*

- Connecting remote and isolated areas to urban centres at a lower cost than through conventional infrastructure.
- Improving access to the information rural people need.
- Enhancing outcomes of “development”- raising awareness, empowering people with relevant information, protecting livelihoods and the environment.
- Providing citizen feedback to government – a check on bureaucratic abuse and corruption, alerts the government to citizen’s needs and concerns, and give citizens a sense of having a voice in society.
- Assisting people in monitoring accountability of development programmes.
- Building the learning society and the learning

community – diversifying, enriching and increasing opportunities for ICT-enabled learning.

**Media**

- Promoting right to information – thus contributing to citizens’ practice of democratic rights and responsibilities.
- Promoting quality of life, livelihood, rights and entitlements, learning about options and possibilities and exercising choices.
- Helping provide information and create demand for goods and services, encouraging local initiatives to meet rising demands.
- Assisting rural people and community members recognise their own importance in the power structure and act as a stimulus to political participation.
- Community radio – technological development has made it possible to establish local radio stations affordably as a hub of local information, communication and knowledge.

**Rural trade unions and cooperatives**

Trade unions, rural workers’ organisations, agricultural producers’ and farmers’ associations show a mixed picture in respect of their development, status and effectiveness in developing countries. Where they have developed, they represent altogether hundreds of millions of rural people worldwide. A trade (or labour) union is an organisation created and run by workers to protect and promote their livelihoods and labour rights in workplaces. Their overall goals are to improve the lives and working conditions of rural people.

**Role and responsibilities – rural trade unions**

- Raising awareness and knowledge about the rights and entitlements of farm and rural workers.
- Raising awareness about the benefit of training, skill development plans and activities among the workers.
- Promoting skill up-gradation and lifelong

**Role of information technology and media – connecting remote and isolated areas to urban centres... improving access to information of rural people... providing citizen feedback to government... involving people in monitoring and accountability... promoting right to information... source of informal education... encouraging civic and political participation... interactive communication through community radio.**

**Role of rural trade unions – raising awareness on worker rights and entitlements... promoting skill up-gradation and lifelong learning... promoting investment on skill development by employers... assisting the development of competency standards... improvement in the status of VET graduates.**

## Overview

Challenges and Policy Implications

Governance has to fit the purpose... One mega-agency in the public sector need not run all skills development programmes... Choices have to be exercised transparently about who does what and how all can contribute... Transparency, accountability and participatory ethic supports democratic development, empowerment of people and a lifelong learning approach.

Decentralisation must be made to work through initiatives and processes promoted in the context of each country's historical and political context.

Activities, results and outcomes of skills development for rural transformation have to be monitored and evaluated. Necessary adaptations need to be undertaken when the efforts are not on track.

Organisational structure of M&E will depend on the substantive elements of programmes designed to bring about rural transformation.

learning among the workers.

- Running special courses/institutes for skills development of workers.
- Promoting investment on skills development among the employers.
- Facilitating participation of workers in all relevant skills development activities.
- Assisting the development of competency standards, especially for off-farm skills.
- Facilitating improvement in the status of VET trained graduates.

To sum up this discussion of governance and management of skills development to serve the goals of rural transformation, it can be said that governance has to fit the purpose. There is no one template that can be applied, but experience of decades points to principles and general lessons which can guide action (Ahmed: 2009).

Several key principles regarding the governance and management of skills and capacity development of rural people can be underscored:

*Partnerships of all actors within a common framework of policy and strategy:*

*It is neither necessary nor very efficient to have all or most of skills development programmes managed by one mega-agency in the public sector. Many of the activities can be carried out, within a common agreed framework, by NGOs, community organisations and the private sector, with appropriate financial incentive and technical support from the government and other sources.*

*Participatory choices:*

*There are choices to be exercised regarding who among potential providers of services does what and how all can contribute to meeting the critical and diverse learning needs of people. These choices must be made in a participatory way within an agreed overall national framework of goals and priorities, guided by consideration and consensus building at national and regional levels within countries.*

*The government role that facilitates optimal contribution of all actors:*

*The government, especially at the national level, would generally have a regulatory, facilitative and guardian of public interest role. A larger role for various non-government actors would mean that the role of national government agencies may be more at policy-level with senior technical professionals assisting in developing overall policies and priorities, creating supportive and facilitative mechanisms, providing finances and helping to mobilise resources.*

*Making decentralisation work:*

*It is a process that has to be promoted in the context of each country's historical, political and bureaucratic culture. There has to be trial and experimentation and systematic building of capacities of personnel at different levels for decentralisation to work effectively.*

*Transparency, accountability and participatory ethic:*

*These valued characteristics in an education or development programme, also happen to be in line with the philosophy and ethics of democratic development, empowerment of people, and a lifelong learning approach. These attributes are not always consistent with the bureaucratic culture and practices in many countries and the hierarchy-based social roles and values.*

## Monitoring and evaluation of skills development

The activities, results and outcomes of skills development for rural transformation have to be monitored and evaluated to ensure that progress is being made and necessary adaptations are undertaken when the efforts are not on track.

The organisational structure of the M&E system will depend on the substantive elements of the programmes designed to reduce poverty and bring about rural transformation. What needs to be underscored is that a result-focused monitoring and evaluation system with specified functions and processes has to be established. It needs to be built



into the governance and management structures of all the major organisational entities which may have responsibilities for various components and elements of the rural transformation agenda.

### ***Good governance and monitoring and evaluation***

Good governance, in the sense of basic efficiency, transparency and accountability in management of resources to achieve the outcomes, is a prerequisite for success in the complex and multi-dimensional endeavour of skills and capacity development for rural transformation and poverty reduction. Adequate monitoring and evaluation is fundamental to minimisation of corruption, wastes, delays and mismanagement in this effort. Corruption and waste of public resources are major obstacles to effective implementation to large scale public entitlement and social protection programmes which defeat the basic purposes of these initiatives in many developing countries.

To what extent are countries prepared to install an effective result-based M&E system? The authors of the result-based M&E system advocated by the World Bank suggest that an assessment of readiness of a country to adopt such a system should be the first step in developing and introducing an effective M&E system. (Mudahar and Ahmed: 2010).

A survey undertaken in selected countries to assess readiness of countries to design and build a result-focused M&E system found many obstacles. Often there are no genuine champions among the top policy and decision makers of the government and sectoral ministries for such a system, though many are willing to provide lip service to it. It was difficult to identify and get support for reform initiatives in public management that would create incentives for linking performance to M&E findings.

Moreover, legal and regulatory provisions for using M&E systematically in decision-making were lacking. Weak technical capacity in public agencies in M&E and management of credible information systems and inadequate training capacity in uni-

versities and research institutions to develop these capacities also were impediments. Strong political support and sustained institutional capacity building in M&E itself will be needed for introducing credible and useful M&E systems in most developing countries (Kusek and Rust: 2004).

There is general agreement about the essential sequences and steps for building a result-based monitoring and evaluation system (see Kusek and Rust: 2004). These essential elements include:

- Conducting a readiness assessment for introduction or/and strengthening of M&E systems.
- Formulation of goals and outcomes.
- Selecting outcome indicators, relevant to the goals which will be used in monitoring and evaluation.
- Deciding on responsibility, organisational mechanisms and capacities needed for carrying out monitoring and evaluation.
- Determining and constructing tools and instruments for collecting data on the indicators.
- Gathering baseline information on key indicators.
- Collecting and recording data systematically and regularly on the indicators using the appropriate tools.
- Analysing the data and reporting results of the analyse.
- Sustaining and further refining the M&E system at central, sectoral and decentralised tiers of the government (Mudahar and Ahmed: 2010, Figure 9.1).

### ***Constructing a rural transformation index***

To the extent possible, it is important to indicate trends, or desirable changes, on relevant indicators to show progress or lack of progress in respect of rural transformation. This can constitute a Rural Transformation Index (RTI).

The rural transformation indicators have to be

**Adequate monitoring and evaluation is fundamental to coping with corruption, wastes, delays and mismanagement.... Corruption and waste are major obstacles to implementation of entitlement and social protection programmes.**

**It is important to indicate trends, or desirable changes, on relevant indicators to show progress or lack of progress. A composite value of these can constitute a Rural Transformation Index (RTI).**

## Overview

Challenges and Policy Implications

RTI can comprise the measures for three gaps – per capita national and rural GDP, rural and national Human Development Index (HDI), and the ratios of agricultural share of GDP to national GDP and agricultural share of work force to national work force.

about rural people and rural areas, but seen within a national perspective. It can be justifiably argued that there has to be a more balanced growth and development, marked by reduction of three kinds of gaps to overcome the present disparity between the situation of the rural people and the rest in each country. These gaps to be narrowed and eliminated are:

- The gap between per capita rural GDP and per capita national GDP;
- The gap between rural HDI and national HDI; and
- The gap between the ratio of agricultural GDP/total GDP and the ratio of agricultural employment/total employment.

If it is agreed that the reduction of these gaps, thus moving towards a balance in development and well-being of rural and urban populations, as the thrust of rural transformation, RTI can be the composite value of these three measures. RTI can indicate the present status of a country and can provide the basis for setting goals for change in various indicators in respect of rural transformation.

Data are available for the rural population by country. To construct RTI, therefore, data are needed for rural GDP, agricultural GDP, and rural HDI (or at least components of HDI), to ascertain the gap between the rural and national values of these indicators. We can then take the consolidated averages of these and relate these to ranking of countries by rural population.

### *Approach to measurement of skills for people in rural transformation*

Some of the measures of skills used at present relate to quantitative proxies for skills such as years of education or the level of qualification attained. These measures are based on the assumption that each additional year of education and different qualifications represent the same amount and quality of skills regardless of institutions and locations. Moreover, they ignore skills acquired

informally and outside the education and training systems.

Increased access to education and training does not necessarily lead to better economic outcomes, as discussed earlier. In order to make skills supply relevant for the economy, information is needed about demands for skills in the first place. Distribution of employment by education/training background and by occupations provides indications regarding the match between supply and demand. Usually, census and labour force and household surveys provide this kind of information. An important challenge in this regard arises, as noted earlier, from the fact that large parts of the economy are in the informal sector.

A number of measures of economic performance and labour market and health outcomes can provide information on the links between skills and these outcomes. In respect of economic performance, measures could focus on production and productivity growth at the local level for different sectors and types of economic activities. Labour market outcomes are seen in employment, unemployment and underemployment rates and earnings.

Measures of health outcomes could be about general health and nutrition and disease burdens for specific diseases with high prevalence. Clearly, to be meaningful for the purposes of assessing the role of skills development for rural transformation, it is essential that systems are established to collect these statistics at the local level and consolidated regionally and nationally showing urban-rural breakdown.

Recognising the importance of a coordinated and strategic approach, OECD has initiated the development of a global skills strategy – a systematic, evidence-based approach to promoting in countries the formulation of sound skills policy and programme development.

## Resource mobilisation and international cooperation for skills development

Under-investment in education combined with poor targeting of expenditures, especially in relation to rural needs, is a major obstacle to equitable access, quality and relevance of education and training. Increased resource mobilisation by countries themselves and its better allocation and use must be a key element of the effort to close the educational resource gap in general and to direct resources to achieving rural transformation.

At the national level in developing countries, development priorities and plans have to be looked at to re-examine the national poverty reduction strategies. The priorities in public expenditures have to be under review; how equitable allocations are and how effective is the management of budgets have to be assessed. Participation of civil society and other stakeholders should be ensured in determining priorities and in improving accountability. A greater effort has to be made to mobilise domestic resources, applying criteria of equity.

Economic and financial difficulties that have hit recently the European Union, North America and Japan pose new uncertainties about fulfilling their commitment to assistance for poor countries in supporting the MDG and EFA goals within the framework of international cooperation and solidarity. The long-standing target of devoting a minimum of 0.7 percent of GDP as international assistance appears to have receded farther for some of the largest industrialised economies.

Arguably, in difficult times, it is more important than ever to stand by each other, recognise the inter-dependence of economies and common interests of humanity, and work together to lift all above the threshold to meet basic needs of people and ensure human dignity for all. There is no good reason for not doing so when the sacrifices called for from citizens and states in the industrial world are small by any reasonable measure.

## Climate Change Funds

The mortal threat of climate change is a stark reminder of the urgent need for international partnership and cooperation. Solutions lie both in mitigation – reducing carbon emissions, and adaptation – helping communities cope with the current and future effects of climate change. Meeting the costs of adaptation to climate change is a major challenge for the international community.

There are several dedicated multilateral climate funds that support adaptation measures in developing countries: (i) *Least Developed Countries Fund (LDCF)*; (ii) *Special Climate Change Fund (SCCF)*; (iii) *Adaptation Fund (AF) established under the Kyoto Protocol and made operational in 2009*; (iv) *Global Climate Change Alliance (GCCA)*, (v) *bilateral initiative of the EU*, and (vi) *Pilot Programme for Climate Resilience (PPCR)*, a World Bank administered climate loan facility, set up in 2008 to provide loans to encourage integration of climate resilience into national development planning.

The plethora of funding mechanisms has meant a lack of coordination and consolidation at the international and national levels and administrative burdens at the recipient end. Negotiations for a global Green Climate Fund (GCF) under UNFCCC have been grappling with the question of mobilising adequate finance and utilising funds equitably and effectively. The GCF is supposed to channel “a significant share of new multilateral funding for adaptation”, balancing its allocations between mitigation and adaptation (Nakhoda: 2011). Besides the mechanisms and size of funding, the content of what is to be done with the funds, especially in respect of the “software” of sustainable development, need equal attention.

*The countries with large proportions of the population in the category of rural poor cannot do it by themselves. Closing the resource gap for education in the poorest countries and the poorest segment of the population in these countries requires that:*

**Increased resource mobilisation by countries themselves and its better allocation and use must be a key element of the effort to close the resource gap in general and to direct resources to achieving rural transformation.**

**Public expenditures have to be reviewed for equitable allocations and effective management. Civil society and other stakeholders should participate in setting priorities and in improving accountability. More domestic resources have to be mobilised, based on equity.**

**In difficult times, it is more important than ever to stand by each other, work together to lift all above the threshold of basic needs and ensure human dignity for all.**

## Overview

Challenges and Policy Implications

Countries with large proportions of the population in the category of rural poor cannot do it by themselves...richer countries must fulfil their pledges... international and multilateral poverty reduction and climate change facilities should be re-designed to meet education and skills development needs... directing resources to improving quality and overcoming disparities in rural areas.

Climate change financing, given the synergy in objectives of enhancing skills and capacities and coping with climate vulnerabilities, should be designed and utilised for contributing to education, training and capacity building.

- *The richer countries fulfil their pledges to fill the resource gap for the poor countries; a combination of debt relief and increased aid should be provided to the least developed and other poor countries.*
- *The multilateral and international financial institutions' poverty reduction and climate change facilities should be designed to meet the resource requirements for education and skills development; resources should be directed to improving quality in this effort and overcoming disparities in rural areas.*
- *National poverty reduction strategies should be strengthened through equitable allocation and management of budgets, and greater accountability and participation of civil society organisations.*
- *National governments need to review priorities in public expenditures; and make a greater effort to mobilise domestic resources, applying criteria of equity (Oxfam and ActionAid: 1999).*

*The bottom line is that there has to be a major increase in resources for rural education and skills development, with mobilisation from all sources along with better use of available resources. This increase need to occur within a re-ordering of national development priorities and strategies that recognises and aims at correcting the present disparities and imbalances between urban and rural areas.*

In the diffused undefined landscape of skills development, it is almost impossible to estimate what resources are available for what purposes and how these are utilised. A systematic effort is needed at the local level to assess and estimate resource availability and needs which can be consolidated to derive an overall national and sub-national picture.

A major part of any new resources will have to be devoted to incentives for teaching personnel, and their training and supervision. Performance standards and assessment of the results of their work have to be established to justify the incentives.

*Climate change financing, not only because it is a new source, but also because of the synergy in objectives*

*and strategies of enhancing skills and capacities and coping with vulnerabilities, should be designed and utilised for education, training and capacity building. The aim should be to remove urban-rural disparities in opportunities in this respect. It has to be ensured, however, that the climate change resources for education and skills development are in fact additional and not mere replacement of "regular" external assistance and national allocations for these sectors.*

*National goals of poverty reduction and social equity in most developing countries call for significant increase in public resources for rural skills development. How much, precisely for what, how these should be matched or complemented with other sources are matters that have to be worked out on the basis of strategies and plans for rural transformation and skills development within that framework.*

As the MDG and EFA historical milestone of 2015 is approached, progress and shortfalls are likely to be scrutinised and pathways for the future will be searched. In this scrutiny, how scarcity of resources have affected progress and how these can be overcome in the future have to be a prominent topic.

### International and regional cooperation

The task of visualising rural transformation as a central component of national development and defining, designing, and implementing the role of education in this effort has to be undertaken primarily in each country. In today's global village, however, there is an international dimension to every significant national endeavour.

The last decades of the 20th century has been characterised by a conscious effort to develop and articulate global views and goals on major common problems faced by humankind. These in turn have informed and influenced national goals and priorities. The EFA movement in the decade of the 1990s and its continuation in the new century represent a prime example of the interaction between global and national initiatives.

*The international coalition of supporters and promoters*

of EFA that has emerged in the last two decades, including international organisations, donor agencies, NGOs, professional groups, and communication and media agencies, have a special responsibility and the opportunity to move forward the ERT agenda.

UNESCO, the lead agency for education, culture and science in the United Nations system, the co-initiator of ERT, and the focal point for the follow-up of EFA, is at an advantageous position to provide leadership in building a grand alliance for ERT. UNESCO can do so and help formulate the implementable action agenda in collaboration with international and national stakeholders in ERT.

The existing regional structures of cooperation and exchange in education and other relevant components of EFA should be mobilised to play their role in promoting the ERT agenda. The regional mechanisms have a special responsibility to bring out the common regional characteristics of EFA and ERT and facilitate exchange of experiences among neighbouring countries with similarities of conditions.

The contribution and comparative strengths of NGOs, national and international, in the area of education and related components of rural transformation have been discussed. NGOs, in line with their own mandates and priorities need to participate prominently at global, regional and national levels at forums for policy discourse and in carrying out activities in their respective spheres of interest as partners in the grand alliance for ERT.

UNESCO-INRULED, as the international centre with a mandate for research, education and training in rural education, and as the initiator of this report on ERT, has a special responsibility in advancing the ERT agenda. It needs to look at its academic, training and research activities in the light of ERT objectives. Its present and potential capacities and resources should be assessed and a plan for its development should be prepared with a focus on academic and research programme, advocacy and experience-sharing activities in support of the ERT agenda.

In summary, the needs and potential for regional and international cooperation in a number of

areas merit special attention – sharing, learning and disseminating lessons through cooperation among countries, organisations and institutions; strengthening existing international cooperation mechanisms; and fulfilling rich countries' pledge of cooperation.

#### **Learning from diverse experience and stages of development among countries**

Diversity in development experiences and different levels of progress in skills development in the context of respective rural and national development scenario offer a special opportunity to share experiences and learn from each other. A systematic effort needs to be made through bi-lateral and multilateral channels and the channels of UNESCO and other international agencies as well as international NGOs for learning from the rich pool of country experiences.

#### **International and national exchanges among civil society organisations**

Civil society organisations and development NGOs concerned with education, rural development, poverty alleviation and sustainable development have their network and forums for promoting cooperation and sharing experiences. These efforts as well as exchanges among national NGOs and academic and research institutions within regions and across regions should be encouraged and supported. INRULED and UNESCO should consider how they can contribute to and facilitate this process.

#### **Priority to promoting cooperation and exchange through external assistance**

Living up to the pledges of financial support for poverty alleviation, mitigation of and adaptation to effects of climate change and EFA by rich countries would be a vitally important expression of international cooperation and human solidarity. A small proportion of the promised resources would be well spent on promoting purposefully designed cooperation and exchange on skills development for rural transformation within regions and, when relevant, across regions, for mutual support to capacity building among countries.

The international EFA coalition has a special responsibility to move forward the ERT agenda...UNESCO can take a lead role in formulating an implementable agenda for action working with all stakeholders.

UNESCO-INRULED has a special responsibility in advancing the ERT agenda. It needs to look at its academic, training and research activities in the light of ERT objectives.

Civil society organisations and NGOs concerned with education, rural development, poverty alleviation and sustainable development in countries, regions and across regions should be encouraged and supported.