



Education resource
projections in
the context of
sector-wide
development
planning



Education Policies and Strategies 10

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UNESCO

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This compendium summarizes the presentations and debates of participants and experts in *the UNESCO Technical Workshop on Sector-Wide Education Resource Projections*, which took place at UNESCO Headquarters (Paris, 6-10 June 2005). The officials and specialists representing 26 Member States (Bangladesh, Bolivia, Burkina Faso, Cameroon, Democratic Republic of Congo, Ethiopia, Fiji, Ghana, Guyana, Honduras, India, Indonesia, Malawi, Mauritania, Mongolia, Mozambique, Nicaragua, Niger, Nigeria, Pakistan, Republic of Congo, Samoa, Uganda, United Republic of Tanzania, Vietnam and Yemen), as well as UNESCO field offices attended this meeting.

The workshop aimed to enable national and international participants:

- to exchange their experiences in national policy planning and implementation in the context of EFA;
- to build on this experience for engaging in and/or completing the policy formulation and costing for all EFA goals within such sector-wide frameworks; and
- to discuss the ways and means for better tailoring UNESCO's support to countries' needs and demands.

The compendium is being published so that others can learn from the experiences of this particular group of countries, not least because the workshop provided a useful overview of where these countries are in their planning for EFA, complementing the less detailed, annual surveys carried out by UNESCO. In addition, this compendium should be of interest to others because the overview illustrates countries' needs not currently being met by IDPs and the importance of integrating EFA goals within wider development and education sector policy frameworks.

UNESCO experts (Gwang-Chol Chang, Lily Neyestani, Mohamed Radi and Abby Riddell) and consultants (Alpha Aboubacrine, Marisa Alvarez, Serge Cuenin and Paula Mendonça) contributed to the design and writing of this compendium.

For further information, please consult the following website:

<http://www.unesco.org/education/eps> under the heading "Capacity Building"

Preface

This is the tenth volume in the series *Education Policies and Strategies* launched by UNESCO's Division of Educational Policies and Strategies. Deliberately eschewing an excessive concern with theory, it seeks above all to be a collection of good practices. Through the choice of themes addressed, UNESCO aims to share its experience not only with education planners, but more broadly with all those interested in the elaboration and implementation of education policies and strategies.

This volume, entitled *Education resource projections in the context of sector-wide development planning*, summarizes the presentations and debates of the participants in the "UNESCO Technical Workshop on Sector-Wide Education Resource Projections", which UNESCO organized in Paris, France, from 6 to 10 June 2005.

The World Education Forum, held in Dakar in 2005, recommended that all States, building on existing national sector strategies, should develop or strengthen national plans of action by 2002 for achieving the six EFA goals and affirmed that "no countries seriously committed to education for all will be thwarted in their achievement of this goal by a lack of resources". Serious commitment of Governments is to be underpinned by a clear political will and stronger national leadership for the effective and successful implementation of these goals; furthermore, it has to be transcribed into credible education sector development plans, which are reviewed in light of the six EFA goals and fully integrated into broader national development frameworks, with the costing of the domestic resources likely to be made available and the financial gaps that need to be filled.

According to annual surveys organized by UNESCO to assess the progress made in national planning for EFA, we found that most countries have embarked on or completed their planning exercises for EFA implementation, but in many cases, they haven't integrated all the EFA goals into their sector plans, nor fully costed them in such a way as to ensure that no credible plan is denied the necessary resources for its fulfilment.

UNESCO has organized a series of capacity building workshops for national education administrations, whose aim has been to provide technical staff with practical tools for their work in policy formulation, educational planning, resource projections and implementation strategy design within sector-wide education development frameworks. The resource projection modelling workshop of June 2005 was organized in this context.

The country representatives discussed issues arising in national education development, in the changing context of development cooperation for EFA, as well as challenges they were facing to estimate domestic and external resources required for achieving the EFA goals within sector-wide education development frameworks and to identify the finance gaps. Discussions were also held on the proposed UNESCO strategy for cooperation with its Member States, whose findings have been used not only to improve the Organization's cooperation strategy, but also to enhance the networks of experience, knowledge and expertise between countries.

In view of the relevance of the topic, both to decision-makers and to education specialists, UNESCO decided to make it the subject of a publication for wide distribution. Through this compendium, UNESCO hopes to disseminate more widely the lessons drawn from the diverse experiences of the participating countries to specialists of other countries. We hope that the different national perspectives that are presented here will provide food for thought and fuel useful debates so as to improve the processes of planning and implementation of education policies in other countries that are endeavouring to meet the challenge of attaining the goals of Education for All.

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Division of Educational
Policies and Strategies

Acronyms and abbreviations

CDF	Comprehensive Development Framework
CSO	Civil Society Organization
DAC	OECD's Development Assistance Committee
DFA	Dakar Framework for Action
ECCE	Early Childhood Care and Education
EFA	Education for All
E-MAP	E-Network on Educational Management and Planning
EMIS	Education Management Information System
EPSSim	Education Policy and Strategy Simulation
FTI	EFA Fast Track Initiative
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GIR	Gross Intake Rate
HIPCs	Highly Indebted Poor Countries
IDPs	International Development Partners
MDGs	Millennium Development Goals
M&E	Monitoring and Evaluation
MOE	Ministry of Education
MTEF	Medium Term Expenditure Framework
NFE	Non-Formal Education
NGO	Non-Governmental Organization
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PRSP	Poverty Reduction Strategy Paper
SWAps	Sector-Wide Approaches
UNDAF	United Nations Development Assistance Framework
UNESCO	United Nations Educational, Scientific and Cultural Organization

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1 Introduction

At the World Education Forum, held in April 2000, the international community adopted the Dakar Framework for Action reaffirming its collective commitments to achieve the goals of Education for All (EFA) by 2015. The Dakar Framework requests all States “to develop or strengthen existing national plans of action by 2002 at the latest... These plans should be integrated into a wider poverty reduction and development framework, and should be developed through more transparent and democratic processes, involving stakeholders, especially peoples' representatives, community leaders, parents, learners, non-governmental organizations (NGOs) and civil society. The plans will address problems associated with the chronic under-financing of basic education by establishing budget priorities that reflect a commitment to achieving EFA goals and targets at the earliest possible date, and no later than 2015.”

Specifically, the Dakar Framework for Action (DFA) states that each plan for EFA achievement will:

- be built on national sector-wide strategies;
- be developed by government leadership in systematic consultation with civil society;
- attract co-ordinated support of all development partners;
- specify reforms addressing the six EFA goals;
- establish a sustainable financial framework;
- be time-bound and action-oriented;
- include mid-term performance indicators; and
- achieve a synergy of all development efforts, through its inclusion within the national development planning framework and process.

In response to the DFA, many countries reviewed their education sector policies and plans or developed new ones in light of the six EFA goals. However, not all have had the facility of integrating the EFA goals into their sector plans, nor of fully costing their prospective plans in such a way as to ensure that no credible plan is denied the necessary resources for its fulfilment.

Achieving all the EFA goals requires their full integration into sector-wide, even cross-sectoral development plans. It also involves policy trade-offs, which vary across different national contexts. According to several surveys organized by UNESCO to assess the progress made in planning for EFA, in many cases, Member States' sector or basic education plans have given little to no consideration to the "non-primary" EFA goals.

As international coordinator of the EFA movement, UNESCO has sought to ensure that all countries have the necessary support to achieve all six EFA goals. In this context, UNESCO has organized a series of capacity building workshops for Ministries of Education, whose aim has been to provide technical staff with practical tools for their work in policy formulation, planning, management and strategy implementation within sector-wide education development frameworks.

This document is the report of a meeting, the "Technical Workshop on Sector-Wide Education Resource Projections" that took place at UNESCO Headquarters (Paris, 6-10 June 2005), with participation of officials and specialists representing 26 Member States, as well as UNESCO field offices. The workshop aimed to enable participants:

- to exchange their experiences in national policy planning and implementation in the context of EFA;
- to build on this experience for engaging in and/or completing the policy formulation and costing for all EFA goals within such sector-wide frameworks; and
- to discuss the ways and means for better tailoring UNESCO's support to countries' needs and demands.

The participating countries included: Bangladesh, Bolivia, Burkina Faso, Cameroon, Democratic Republic of Congo, Ethiopia, Fiji, Ghana, Guyana, Honduras, India, Indonesia, Malawi, Mauritania, Mongolia, Mozambique, Nicaragua, Niger, Nigeria, Pakistan, Republic of Congo, Samoa, Uganda, United Republic of Tanzania, Vietnam, and Yemen. Each country, in general, sent two representatives from their ministries of education who are involved in mainstream national sector planning and EFA implementation (one senior level education planner and another specialist in education statistics).

The workshop comprised three major sessions over the four days:

To begin with, there was an exchange of countries' experiences in education policy formulation and planning in the context of EFA (1.5 days). After a general introduction to current international EFA contexts, each country made a

brief presentation¹ on its own national EFA planning experience within sector-wide policy frameworks. Major features of national EFA exercises, lessons and challenges were presented and discussed in the plenary session, which, subsequently, was divided into the three language groups of the countries in order to allow more in-depth discussion of their respective contexts and experience.

The second major session comprised practical working sessions on EFA policy simulation and education resource projections (2.5 days). Its aim was to help expand and complete EFA planning and costing exercises already carried out in the participating countries, through the adaptation of a generic “demographical” simulation model to their national education planning contexts. To this end, country representatives had been requested in advance to bring to the workshop their existing simulation models, education development plans, as well as policy and baseline data. The advantages and limitations of the simulation tool were discussed, as well as the experiences of Argentina, Mali and Mozambique in developing and/or adapting sector simulation models. The workshop combined conceptual presentations with practical, hands-on computer sessions.

The final topic of discussion concerned UNESCO’s support for EFA policy planning and implementation (1/2 day). In particular, this session was designed to enable participants to offer their feedback on on-going UNESCO country cooperation and their advice on future collaboration and needs. Presentations were given and discussions held on the proposed UNESCO strategy for cooperation with its Member States, which results of this debate were not only to improve the Organization’s cooperation strategy, but also to enhance the networks of experience, knowledge and expertise between countries.

The present document is not merely a record of the aforementioned technical workshop. It has been enriched by the countries’ national reports, prepared for presentation at the workshop by country representatives, and which include descriptions of the current status of their national EFA and/or sectoral planning efforts, their partnership arrangements with development agencies and civil society, the financing and expenditure frameworks they have put into place, and an assessment of their capacities in producing resource projections for educational development planning and the further challenges of achieving the EFA goals. Furthermore, this document encompasses the reflections of the UNESCO experts and consultants on their findings and experience in the field,

¹ To consult individual country profiles prepared on the basis of the written presentations of workshop participants, you may access them through the UNESCO website: <http://www.unesco.org/education/eps> under the heading “Capacity Building”.

in support of national educational planning, especially in the context of EFA achievement.

This report discusses issues arising in national education development, in the changing context of development cooperation for EFA. The following chapter describes the rationale and the need for simulation and resource projection tools throughout national development planning processes from the perspective of both national participants and international experts. The challenges identified and the observations made in the countries' reports illustrate what still needs to be overcome, even where some investment has already been made in resource projection modelling and its utility embraced. Some of the simulation models used have been very partial, focusing on only a sub-sector of the education system. Some countries have experienced difficulties in completing simulation models due to a lack of current, reliable data on which to base projections; and lacking adequate information on the resources provided or which are available, it has also been difficult to estimate those finance gaps which remain over and above domestic and external resource mobilisation, thus challenging the production of 'credible' EFA plans.

The chapter on the "Status of EFA and Sector Planning" presents the issues, difficulties, lessons and challenges as reported by the participants in their respective country presentations. The last chapter envisages the role of UNESCO, whose support calls for further tailoring to the needs of Member States and to the changing development cooperation contexts for EFA achievement by 2015.

It is our hope that this report gives interesting insights into national development contexts and provides useful food for reflections and perspectives for improving national development planning processes in Member States. In particular, we intend to contribute to a more integrated and systemic policy dialogue and resource projections by means of simulation models and other technical tools of educational planning.

2 Resource projections for EFA, sector planning and SWApS

In the Dakar Framework for Action, the international community acknowledged that many developing countries currently lack the necessary resources to achieve education for all by 2015 and stated that “New financial resources, preferably in the form of grants and concessional assistance, must therefore be mobilized by bilateral and multilateral funding agencies, including the World Bank and regional development banks, and the private sector. We affirm that no countries seriously committed to education for all will be thwarted in their achievement of this goal by a lack of resources.”

As aid-dependent countries attempt to access funding for their education sector development, they must not only produce comprehensive plans, but credible ones, that estimate the financial gaps that need to be filled after domestic resource mobilisation has provided what it is able to provide for the sector.

UNESCO supports ministries of education in the development of their human and institutional capacities to plan, prioritise and implement the strategic development of their education systems. As coordinator of the EFA movement, UNESCO has an especial interest in ensuring that countries have the financial resources to achieve all six EFA goals, as per the commitments made by the development partners at Dakar² and subsequently in Monterrey³, that no credible plan will go unfunded. Resource projection models are an important building block to such credible, sector-wide education development plans, and UNESCO technical workshops on such modelling comprise one of the ways in which the

² This refers to the World Education Forum, held in Dakar, Senegal, in April 2000, during which the international community adopted the Dakar Framework for Action “Education For All: Meeting Our Collective Commitments” for the purpose of achieving the six EFA goals by 2015.

³ This refers to the International Conference on Financing for Development, held in March 2002 in Monterrey, N.L., Mexico, in which world leaders made further commitments for increasing development assistance toward achieving the MDGs in developing countries.

Organization fulfils its commitments to support ministries of education in producing costed development plans.

Although nationally-owned (and created) models comprise an important contribution to educational planning in general, increasingly they have become almost a *sine qua non* of the new aid modalities, viz. sector-wide approaches (SWAs)⁴ and budget support, in aid-dependent countries. Relatedly, the movement toward greater harmonisation and alignment of development partners with recipient-country development strategies and priorities has also involved a greater reliance on such models as development partners want to ‘place’ their contributions within such frameworks as they lose ‘project’ visibility.

In the meantime, it should be acknowledged that resource projection models can be useful tools, but are neither a panacea nor a starting point for educational planning. They require so much to have been done prior to their being able to be constructed: a situation analysis, needs assessment, data collection, research studies, consultations, sub-sectoral policy analysis, etc. will all precede projection models, which, in turn, will form the basis of an education sector development plan. Whilst there are fundamental questions which all countries will ask of where they are and where they want to be in their education sector development, there are many different pathways to the data collection, policy analysis and dialogue stages before sector-wide development plans are finalised, no less the implementation plans written to achieve the identified goals. In countries dependent on external finance for the achievement of their education goals, however, there are typically not only many short-circuits to this process, but also, quite commonly, detours.

With these limitations in mind, UNESCO’s field experience shows that simulation models can create a holistic vision of the education sector and help to match enrolments with resources, provide timely information to decision-makers, and facilitate policy dialogue. In its upstream support, UNESCO has given priority to policy and strategy formulation through computer simulation in response to the need for predictive resource analysis in the context of countries’ worsening financial constraints and international cooperation approaches shifting toward sector-wide policy support. UNESCO has focused on reinforcing

⁴ The definition most commonly used is development cooperation in which: (i) all significant public funding for the sector supports a single sector policy and expenditure programme; (ii) under Government leadership; (iii) with common approaches adopted across the sector by all funding parties; and (iv) a progression towards relying on Government procedures to disburse and account for all public expenditure, however funded.

national capacities in this field in order to strengthen countries' leadership and more equal partnership roles with the donor community.

2.1 Resource projections for education development

Compared to other socio-economic sectors, education involves much more complex and multidimensional problems. Faced with financial constraints, governments are not able to meet the ever-increasing social demands without adopting restrictive measures across the education sector in order to rationalise the use of allocated resources. In the dynamics of student flows, as well as that of public finance, they often have to make difficult decisions in order to regulate the utilisation of resources. Because there are too many actors, variables and the interrelations between these, it is necessary not only to have a reliable information system but also an objective projection tool to facilitate policy dialogue concerning the policy options, implementation strategies and the practical need to cope with financial constraints⁵.

Simulation modelling is widely used as a strategic planning and management tool facilitating evidence-based policy-making, informed policy dialogue and resource negotiation for educational development. It is used to test the viability of an education development strategy and to propose alternatives that can help cope with dynamic environments. Educational scenario planning through computer simulation provides a means of examining a variety of possible options for the development of the whole education system or of specific issues of interest. The scenarios, produced through a long process of trial and error by simulations, which consider different policy options, their technical feasibility as well as their financial constraints, can feed constructive policy making and social dialogue surrounding different education development perspectives. These scenarios, at the same time, can help in the design of comprehensive financial frameworks.

Increasingly, external funding agencies rely on computer simulation models for assessing the credibility of recipient countries' educational plans. In the context of strategic planning for EFA, computer-based policy simulation has been widely used in developing countries with support from international development partners (IDs), as a tool for scenario design and resource

⁵ On the rationale of simulation models and further details on major steps of simulation modelling, please refer to a UNESCO publication "Educational planning through computer simulation".

projections, as well as for monitoring and evaluation purposes.

2.1.1 Policy design and action planning

It is in the policy *dialogue* stage, i.e. *before* policy decisions have been taken, that resource projection models come into their own. Costing different policy alternatives to achieve a country's education sector development goals is an important means of engaging in policy dialogue that goes beyond 'wish lists' in which stakeholders simply enumerate what they would like to have funded, but whose feasibility they are often unable to defend. Such simulation also assists greatly in identifying strategies, actions and means of achieving the targeted objectives.

Simulation models contribute to ensuring coherence in goal setting, a better understanding of the implications of policy decisions, and holistic educational development. First, simulation models serve educational policy design, contributing useful information to evidence-based policy dialogue and consensus building, as a tool for testing the feasibility of reform or sector development options.

Second, simulation models provide information on the actions and resources required for educational development. Used as a programming tool following the adoption of sector reform and/or development options, they facilitate the identification of those pedagogical, physical and financial resources required for achieving the defined educational objectives, enabling consideration of the dynamics of the educational system and the interrelations of many of the parameters which influence the educational service delivery.

Third, simulation models can facilitate early estimates of recurrent expenditure and capital investment requirements of the identified reform and development plans. As a result, governments can foresee budgetary gaps in relation to estimated public financial resources and identify the areas in which additional resources should be sought from the national private sector and/or from external partners.

2.1.2 Multiyear resource projections and performance indicators

As briefly explained above, simulation models can contribute greatly to the identification of educational actions and their related resource requirements. These projected annual requirements are estimated on the basis of those quantitative and qualitative goals and targets, which have been defined in the iterative process. Indicative information is provided on school enrolments, as

well as the human, physical and financial resources that need to be mobilised to achieve the education development and reform and similarly, its monitoring and evaluation based on the performance indicators provided. Presented below are some categories of those educational inputs whose multi-year identification is carried out thanks to computer simulation.

Personnel. Simulation models make it possible to estimate the number of teaching and non-teaching personnel required (managerial and supervisory staff, administrative and service personnel, technical and maintenance workers, etc.) and to foresee recruitment needs (per year, per region, and by education level) while taking into account staff attrition and other staff-related parameters. They can also serve to forewarn the Ministry of training needs, both at pre- and in-service training levels.

Buildings and equipment. Simulation models can also be used to estimate infrastructural requirements, determined on the basis of predicted student enrolments and various identified parameters such as pupil/classroom ratios, etc. Relatedly, they can also indicate equipment and maintenance expenditure, the required number of classrooms and other space requirements, per year and by region for all levels of teaching.

Instructional materials. Similarly, such models can estimate requirements for teaching and learning materials, their renewal, costs and their necessary distribution, based on national policy, whether in terms of pupil/textbook ratios or curricular reform, for example.

Since the 1980s, the ministries of education in many countries have been under strong pressure from financial institutions (be they national or international) to prove that the resources they were provided had been used effectively. These pressures have led to result-based programming and management in education. In aid-recipient countries, the external bilateral and multilateral agencies are increasingly requiring programming of development actions to be more accountable and results-based.

In those countries, the education plans are required to include explicitly the results expected of development actions in order to measure, in advance, the educational policy's potential to achieve their objectives – thereby ensuring the wish for efficiency and effectiveness of external investments. The development objectives and actions are to be formulated by integrating the indicators of monitoring and evaluation, most of which are used later on as performance indicators for the joint annual sector review missions and meetings to assess the level of plan achievement.

The simulation models can easily provide the quantified indicators relating to the educational system's organization and operation. These indicators are provided per year for a reasonably long period according to the planned programme, by region and for all the levels of education and training which are examined in the simulation.

2.2 Challenges of resource projection modelling

In the processes of their sector development planning and in response to the recommendation of the Dakar Framework for Action for EFA planning, countries have developed or adapted existing modelling tools for designing their education policies and estimating projected resource requirements. The challenges they have faced in the course of resource projection modelling are numerous. These challenges were discussed at length within the technical workshop both conceptually, and then practically in the course of the hands-on sessions.

In sum, the workshop participants recognised that estimating education sector financial requirements are important not only for policy dialogue, planning exercises and donor coordination, but in order to reach their goals on time, to fund resource gaps, and to provide solid arguments to ministries of finance.

In more detail, some of the common challenges that country representatives discussed are presented below.

A first challenge faced by all aid-dependent countries is detailing the resources actually available and provided for education. Of course, this is especially the case in ministries, which require considerable capacity development in costing and financial analysis. Typically, such detailing of available resources is an initial step in moving toward a sector-wide approach, no less a resource projection model, because it entails an enumeration, across the education sector, of the different contributions to education that are being made by all and sundry, from external development partners' funding, often within specific projects, to the contributions made by NGOs and the decentralised government levels within any country, to the contributions by parents and the community to the various costs of education. A specific study or analysis of educational costs and financing has often been required for such purposes, prior to simulation modelling.

A second challenge, addressed by the models themselves, is the detailing of the

demand side – rather than merely the supply side - of educational projections. The models' iteration of the various financial requirements at each level for access, equity and quality of educational resourcing, prompt the user for the required data from which the models construct the demand side of the projections. However, such prompting does not resolve the choice of criteria on which to base such demand projections, e.g. class size or pupil-teacher ratios, which require policy debate, fuelled by the resource requirements projected for the different values of such variables. Furthermore, in matching the demand and supply sides of the models, it must be recognised that the EFA goals are but a starting point; there is the need for all the data that would be collected from a sector-wide EMIS and the costings across the different levels of education for different sub-sectors. The demand side of the modelling is typically influenced by benchmarks or values of some of the selected indicators. In aid-dependent countries, there are often 'suggested' values, such as the percentage of GDP to be spent on primary education, the repetition rate, etc.

Meeting the data requirements of both the demand and supply sides of the resource projection models is a tall order that ultimately will lead to a costed education sector plan, that not only identifies the resources needed, but the gaps in their provision. Such an encompassing of the whole education sector enables a full discussion and policy debate to take place concerning the different trade-offs in funding different levels of education utilising different resources, and according to different strategies. Whilst a sub-sectoral model may be of didactic value, it will miss the larger debate, ultimately, that should be the foundation of national educational policy decisions in any country and that can best help match the demand and supply sides of educational development.

A third challenge is the multiplicity of simulation models and methods used in or proposed for some countries. To give but a few examples, it often happens that on top of projection models already existing in-country, financial simulation models are proposed by lending institutions in order to calculate, for instance, the financial requirements for achieving universal primary schooling by 2015. Other institutions may arrive with other simulation methods and models, for example, to assess the multi-sectoral resource requirements for achieving the Millennium Development Goals (MDGs). Thus, the challenge faced by such countries is to the improved coherence and fine-tuning of those models, which are used for their own planning purposes. (The Mozambique case study is one such example of a multiplicity of models distorting the Ministry of Education's focus on its already-existing resource projection model.) Which model or approach is chosen should be the country's own decision, based on the purpose and its needs for projection modelling. However, an important aspect that needs to be addressed in such decision-making is whether the selected model covers

the sector as a whole and is integrated within the larger macro-economic development framework.

Ironically, the increased coordination of development partners' funding has not always been accompanied by the necessary coordination of their capacity building efforts, especially as regards projection modelling. This leads to a final, major challenge, that of the ownership of the simulation models. Many countries have remained dependent on external technical assistance in the field of simulation model design. In some cases, capacity building in the use of a proposed simulation model has been organized, leaving the question of its further adaptation by national institutions unresolved. In other cases, those few staff trained in the use or development of simulation models may leave the ministries of education for other public or private institutions. The challenge to capacity building is further related in more detail in the following section.

2.3 Capacity building for EFA and sector management

Capacity building is commonly focused on the different educational planning steps – whether the situation analysis, the needs assessment, the development of an educational management information system (EMIS) or the policy simulation model, to give but some of the 'products' of such capacity building. However, especially in aid-dependent countries in which international development partners (IDPs) offer technical assistance for such capacity building, it is quite common that the tailoring of the capacity building suits the IDPs' timelines and preferences more than the recipients. Thus, the products of the capacity building are produced, but not necessarily the sustainable capacity. This may relate to the modality of capacity building, the counterparts identified, the tools utilised or unrealistic deadlines. Indeed, it may also relate to the fact that development partners often hire their own consultants to 'do' the jobs that need to be done, with little on-the-job capacity building for those within the ministries concerned.

IDPs increasingly are utilising new aid modalities in their development assistance. A focus on development effectiveness and in particular, the requirement of institutional development for long-term, sustained capacity to implement EFA and wider education reforms, has led to the use of new aid modalities, including sector-wide approaches, and particular financial mechanisms, such as budget support that have superseded projects and their all too often, parallel (to government) implementation units. Just the same, as development agencies learn how best to utilise the new aid modalities, their

new-found wisdom often results in prescriptions which, although cloaked in the buzzwords of harmonisation, alignment, ownership, coordination, institutional development, and sustainability, often pay lip-service to the capacity building required to bring about the reality of the changes envisaged in educational planning and management, no less the achievement of the educational goals themselves.

It is often difficult for aid-dependent countries to ‘look a gift horse in the mouth’. Conditionality of old may have been replaced, such as those attached to former structural adjustment loans, e.g. the reduction in precisely those social service budgets which sector-wide development plans now indicate need to be augmented. But if donor funds are dependent on resource projections and there is no capacity for producing such projections, then the modelling may well be carried out in a timely manner, but to produce the models, and not necessarily to build the capacities to produce and adjust such models. Recipient governments need to take a critical view of any such required ‘products’ from the perspective of whether capacities do need to be developed that are contingent upon such ‘products’ in any event, and then, if so, the modalities of capacity building. This is particularly important in ministries with severe capacity limitations in educational planning, as such ministries will be liable to development partners’ parameter decisions as their representatives manipulate the models so created. The coordination, not only of different external funds for education development, but also for capacity building, requires a pro-active, rather than a passive role on the part of the recipient government.

If a country’s development partners are earnest in country *ownership* of education sector development planning within SWAps, then resource projection models are an important building block in such educational planning precisely because they detail the possible and not merely the desirable. Furthermore, such models present the bridge between policy dialogue, policy formulation and action planning. Policy dialogue is enhanced through resource projection modelling because the models estimate and then project the resource requirements of different policy options. Once decisions have been taken on the policies and strategies to be pursued, action plans can be written which, taken across the whole sector, can be detailed in a rolling, medium-term expenditure framework (MTEF). Such MTEFs, themselves, detail, on the basis of the resource envelope for the education sector, the activities to be undertaken, the recurrent and capital costs of so doing, and the results to be achieved, thus marrying in one document the results-based budgeting that lies behind the sector-wide education development plan.

This above planning process could comprise a full cycle of institutional capacity

building by IDPs so that national institutions, e.g. ministries of education, are fully empowered in the design and coordination of national sector development strategies that contribute to ensuring sustainable educational development.

3 Status of EFA and sector planning

This Chapter summarizes the national reports that the participants at the Paris resource projection workshop had prepared and presented during the workshop (see Annex 1 for more detail). What is clear from this synthesis is that in most countries EFA plans are well underway, and there have been strengthened commitments made to education as a result of the EFA movement. The importance of education sector projections of both educational and financial requirements is well understood, but many challenges remain, such as in the prerequisite data collection and analysis for such projections, as well as the economic realities of obtaining the required finance.

3.1 Analysis of country reports

This analysis synthesises what was presented across the 26 country reports, divided into the sections outlined in the report guidelines, which are reproduced in Annex 2 along with a synopsis of the points raised, by country, in each of the reports.

Current status of EFA and/or sector plans

The country reports indicate that with the exception of a few countries, EFA plans have been approved and are underway. A large number have now been integrated into sector-wide education plans, and some have aligned EFA planning with sector or country planning processes. In most countries, the development of EFA programmes (sector plans, EFA-specific plans, projects, etc.) has been carried out through collaborative and consultative processes, within PRSP and other existing national development frameworks, and in line with governments' commitments to international agreements, notably the MDGs. Emerging instruments, such as MTEFs⁶, been created and initiatives, such as

⁶ "An MTEF typically consists of a top-down resource envelope consistent with macroeconomic stability and broad policy priorities and a bottom-up estimate of the current and medium term cost of existing national programmes and activities and an iterative process of decision-making that reconciles these costs with available resources." (Holmes, M. and Evans, A. 2003, p.5.)

SWAps and the FTI, have embraced EFA programmes. Overall, it is clear that the EFA movement has led to strengthened commitments to education, notably, to increased resource allocations, both on the part of governments and of international development partners. This is especially true in cases in which EFA action plans have been integrated into larger sector programmes, thus increasing the funding of basic education and non-formal education programmes. In some cases in which non-formal education has been handled by other ministries, the planning for the achievement of this EFA goal has lagged behind the other goals.

Partnerships with development agencies and civil society

Countries recognise the need for coordination of the efforts of the development community in order to minimize the fragmentation of activities in the sector and essential national institutional development. Sector-wide planning has proved important in national education development, providing a framework for coordination, the optimal use of resources, and more effective delivery. There has been an increased adoption of SWAps, and the transition from separate projects to joint sector programmes supported by the development partners and accompanied by improved government procedures.

While separate donor-supported projects and programmes still exist at country level, there is a clear trend and demand for a shift towards SWAps on the part of governments in order to reduce duplication and transaction costs and to increase resource effectiveness. Just the same, there remains a need for more effective coordination under Government leadership of international development partners and civil society. Furthermore, UN and development agency initiatives need to be aligned with national development strategies. Increased community and civil society participation is strongly needed for the achievement of EFA goals and sector plans. While some countries rely closely on private sector finance, a lack of defined institutional frameworks for public-private partnerships is noted.

Financing and expenditure frameworks

Since Dakar public expenditure on education as a percentage of GDP has significantly increased; however, government resources for education are still limited and insufficient, and efficiency is low. Although EFA has brought more money into the sector, it has contributed to an increase in the demand for education (together with population growth), especially at post-primary levels, thus leading to even heftier, future resource requirements. Basic education generally is receiving more favourable budgetary allocations: some countries rely heavily on prospective FTI funding, but this covers only primary, with a few exceptions in which there has been increased funding for early childhood

(ECCE) and literacy due to EFA. Increasing decentralisation of budget allocations has been a common phenomenon, and Medium Term Expenditure Frameworks (MTEFs) have been adopted increasingly in many developing countries. The general trend has been for countries' budgets to be consistent across sector development plans, PRSPs and other development frameworks.

Resource projections for EFA

Countries recognised that estimating education sector financial requirements is important not only for policy dialogue, planning and donor coordination, but also in order to reach their goals on time, to identify funding gaps and sources for filling them, and to provide solid arguments to ministries of finance. Many countries indicated their projected targets for enrolment, classrooms, teacher/student ratios, but few provided the correspondent financial requirements for reaching these targets, nor the identification of those domestic resources available in order to estimate the finance gaps. Indeed, even in those cases in which estimated financial requirements were provided, most often the necessary projections of those budgetary resources expected to be available were not provided. Where simulation models were found to exist, they were often limited to enrolment projections and resource requirements for primary education, and they did not cover all the EFA goals. Nor was the feasibility of EFA plans evaluated in order to investigate different policy choices and their trade-offs. Furthermore, general projections were provided for 2015 without any yearly breakdowns. However, where FTI funding was in place, multi-year costing until 2015 in some cases was reported.

In many of the reports outdated statistics were simply provided, making it impossible to measure progress. In some others increases in government budget allocations to education over the last decade or so were provided, but without any projections. Major challenges and weaknesses were noted in the field of data analysis, partly due to the non-availability of recent and credible data, acceptable to all stakeholders, for resource allocations and projections.

EFA projections, in some cases, were simply based on traditional increments from previous year expenditure, and in other cases, only now are there attempts to make budgets consistent with sector development plans and PRSPs. In some countries' reports, the estimated financial gaps that need to be filled in order to achieve the EFA goals are astronomical, indicating a lack of any serious effort at matching demand and supply sides in the simulation models.

Challenges for EFA achievement

Across the group of countries represented at the technical workshop, several challenges for EFA achievement were identified. Although strong political will may exist, economic realities continue to hinder many countries from obtaining adequate funding for the implementation of their education plans. Some countries also have to cope with high population growth rates, and some others need to mitigate the negative impact of HIV/AIDS on their education systems. The following challenges were also noted:

- Data analysis capacity is reportedly weak in addition to the need for updated and credible data, together with reliable EMIS.
- There is a pressing need for capacity building to strengthen institutional capacity to manage the sector, especially at provincial and district level for EFA planning, implementation and monitoring/evaluation.
- There is need for enhancing policy development skills in terms of new planning approaches.
- FTI support, which is limited to primary education, challenges sector-wide development.
- High illiteracy rates need to be given serious attention, especially given the greater focus that remains fixed on formal primary education.
- Increased enrolments over the past years certainly have been achievements, but often, they have been at the expense of quality.
- The lack of solid donor coordination in some countries needs to be addressed.
- Wide gender disparities are reported in some countries, despite efforts to address them.

Additional observations

In addition to the above challenges, countries had the following observations to make. Some expressed mixed feelings about the FTI, criticising the initiative for pooling resources only for primary schooling, and also for its slow rate of disbursement. Some countries, relatedly, pointed to the challenges they anticipated in the near-future social and financial demands for secondary

education, which, requiring further, significant financial resources, will affect quality at the secondary level. Also pointed out were the numerous international frameworks and initiatives (often sub-sector focussed), which have narrowed the scope of Government-led, sector-wide monitoring and evaluation.

3.2 Major issues for EFA implementation: participants' perspective

3.2.1 Thematic issues

Some of the thematic issues discussed in the workshop are summarised in this section, following the five predefined themes that reflect some of the concomitant challenges that countries have been facing in planning and implementing EFA and education sector development. The table below presents the thematic clusters, talking points and the countries assigned to present their perspectives on these issues.

Themes	Major talking points	Countries
Theme 1: EFA Goals in national education sector and socio-economic development contexts	<ul style="list-style-type: none"> • Description of current stage of EFA planning and implementation • Status of policy and resource tradeoffs for EFA achievement and its implications for balanced education sector development • Issues, lessons and challenges 	Democratic Republic of Congo; Ethiopia; Mongolia; Cameroon; Nigeria; Yemen; Pacific Islands
Theme 2: Partnerships with civil society, NGOs and the private sector	<ul style="list-style-type: none"> • The role of and cooperation with non-state stakeholders (NGOs, communities, private sector, etc) in planning for EFA and education sector development • Their role and cooperation for plan implementation • Issues, lessons and challenges for strengthening partnerships 	Bangladesh; Bolivia; India, Zambia
Theme 3: Donor coordination, aid harmonization and alignment with country strategies	<ul style="list-style-type: none"> • Description of current in-country practices in aid coordination and harmonization at both planning and implementation stages • Status of aid alignment with country-led strategies at both planning and implementation stages • Issues, lessons and challenges 	Burkina Faso; Guyana; Malawi; Mozambique; Pakistan

Themes	Major talking points	Countries
Theme 4: Expenditure frameworks for education sector development	<ul style="list-style-type: none"> • Current budgeting procedures and practices in the education sector • Education resource projections and the role of simulation models • Issues, lessons and challenges 	Tanzania; Nicaragua; Uganda; Republic of Congo; Vietnam
Theme 5: Education sector management	<ul style="list-style-type: none"> • Appraisal of institutional capacities for education sector planning and management • The role of annual sector reviews for plan monitoring and policy adjustments • Issues, lessons and challenges 	Ghana; Niger; Honduras, Mauritania

3.2.2 Experience, lessons and challenges

Theme 1: EFA Goals in education sector and national development contexts

First of all, EFA plans, generally, have taken one of three forms: (i) they have been developed separately from sector plans and are the subject of special programmes financed with specific funding, such as the FTI; (ii) they have been fully integrated into education sector development plans developed at the same time as EFA plan formulation; or (iii) they have been integrated into education sector development plans whilst these have been adjusted or updated.

Integrated or not into a sector plan, most national plans for EFA make reference to the wider development frameworks of Poverty Reduction Strategies (PRs) and the Millennium Development Goals (MDGs). In addition, rolling, Medium Term Expenditure Frameworks (MTEFs) have been developed for some countries' education plans, though often, these have related only to basic education. In general, plans have pursued the achievement of EFA by 2015, though some countries have used shorter timelines.

Although countries emphasise different facets of their educational development, the plans for EFA achievement, generally, have included five components: access, equity, quality, internal efficiency (repetition and retention, in particular) and management. The duration of formal basic education varies by country from 5 or 6 years as primary education, to 8 or 9 years as general education. The inclusion of the first cycle of secondary education in "basic education" was brought up explicitly by some countries, as an area on which they wanted to carry out simulations to determine the cost of such an extension.

Not only was there commonality across what was covered in most plans for EFA achievement: non-formal education, and even more so, informal education, was

most often excluded from existing plans. However, non-formal and informal education, together with vocational training for those graduating from basic education, have become major concerns whose requirements need gradually to be taken into account in existing sector programmes or those in the making.

Theme 2: Partnerships with civil society, NGOs and the private sector

The priority given to basic education, generally, has been favourably received by civil society, as well as the IDPs. If sensitisation of such groups has been relatively easy, the actual achievements and the progress made as a result of such partnerships, have proved more difficult to measure. Hard to overcome have been the obstacles to girls' education, the opportunity costs to families of education for *all* their children, and the financial hurdles to overcome in order to reach the ambitious enrolment objectives.

In Bangladesh and India, the involvement of NGOs and CSOs has been very important. Yet there remains the need to ensure regular capacity building of communities (from their involvement to actual ownership), to enlarge NGOs' roles by setting up more effective mechanisms to plan and implement EFA, to strengthen dialogue for enhanced public-private partnerships and to reach agreement on collective mechanisms for the coordination and streamlining of activities of various stakeholders. In addition, there were some questions raised on issues of accountability (to whom should NGOs be accountable?), profit-making (should the commercial activities of NGOs be subject to government overview?) and quality assurance (should CSOs be involved not only in monitoring enrolments, but also pupil achievement?).

Theme 3: Donor coordination, aid harmonization and alignment with country strategies

In some countries, the use of new aid modalities has resulted in the creation of new partnerships between bilateral and multilateral development agencies on the one hand, and national authorities, on the other, enabling more effective resource utilisation. Different countries exemplified different stages of such new aid modalities, the first stage of such a shift being from a project approach to a programme approach. When IDPs have been closely associated at the planning phase for EFA, generally, they have been more inclined to move toward the pooling of external funds for the sector or direct budget support to sector programmes. The success of such processes has depended on several necessary conditions, including mutual trust, the leadership of the ministry concerned, the programme having broad support and an effective system of programme monitoring and evaluation.

Whilst development partners have made efforts to improve aid coordination and the alignment of their programmes around national development priorities, there have been mixed results across different countries. It was reported from Guyana, for instance, that although government and the development community might share the same aims, they often disagree on strategies. Examples were given of particular agencies adopting different sub-sectors as their own, having fiduciary requirements that did not always complement national institutional development. Importantly, donor coordination was seen to be most apparent around planning, which could facilitate the coordination and alignment of plan implementation at later stages.

In Mozambique, despite the progress achieved in donor coordination, it was noted that there was still room for improvement at both central and local levels. Also pointed out was the need to enhance the transparency and predictability of funding and the fact that some donors would only support NGOs, which is an outstanding issue. In the case of Pakistan, it was reported that donors concentrated their interventions either geographically or sub-sectorally in the midst of a lack of coordination between the line ministries and the decentralized levels receiving donor support. It was also pointed out that there was a clear need to assess the donors' performance, as well as the recipient country's performance.

In order to enhance donor coordination, aid harmonization and alignment with country strategies, governments and donors would gain by setting up appropriate quality benchmarks for assessing aid performance and also devising different ways of integrating educational plans with national development and other cross-sectoral planning.

Theme 4: Expenditure frameworks for education sector development

The financing of education for all is the principal concern of most countries. Simulation models reveal the gravity of this undertaking, with actual or potential difficulties arising at two levels.

Firstly, basic education is a large consumer of human resources: to cope with the natural increase in the school-age population and the education of out-of-school children, not to mention improving pupil/teacher ratios, requires an ever-increasing number of teachers. However, in many countries, it is not possible to ensure the sustainable financing of educational development if the average cost of a teacher expressed as multiple of GDP per capita is not reduced significantly. If simulation models make it technically possible to define financially-balanced

scenarios, this balance can be broken as a result of wage claims of the teachers. The financial balance of long term plans or programmes, thus, is often uncertain.

Secondly, financing education for all is often increased by reducing the share of the public educational budget allocated to other sub-sectors: secondary and higher education in particular. However, with increased schooling at primary level, progressively, the social demand for secondary education will increase, especially if serious attention is not paid to the provision of minimal, acceptable occupational qualifications/standards of those graduating from basic education.

In order to reduce this constraint, there are several means available, all of which deserve examination, and where possible, coherent implementation. They are: (i) to increase domestic and external financing, (ii) to re-examine the methods of financing, and (iii) to act on the parameters which can allow the education system - and particularly basic education - to operate more effectively. In fact, countries have been working along all three lines.

As relates to increasing the finance for education: simulations carried out at the time of designing EFA plans or sector programmes generally envisaged rises in State budgets (in centralized countries) or public spending (decentralized countries). The question remained: how to maintain the projected pace of the required budget increases? Attempting to increase the contributions made to education by families appeared to be difficult, as families were already financing a significant share of total education costs. On the contrary, it appeared preferable to reduce the financial burden on families, especially in rural areas, if one aimed at achieving education for *all*. Recourse to increased external finance seemed a more likely, and in fact, pursued policy direction.

Given the new aid modalities described above, it was felt that those in charge of basic education would be in better positions to request additional funding if they could show that they could manage their budgets efficiently and effectively. This, however, would require capacity building, starting with a reliable management information system but comprising other planning tools as well, such as projections, budgeting and monitoring of the plan implementation. Many participants at the workshop described how their countries had tried to make simulations in order to demonstrate the credibility of the policy options chosen, including those concerning average teachers' salaries.

To give but a few examples concerning expenditure and financing frameworks presented by different countries, Tanzania consolidated its education development programme around its national priorities, linking policies and resources and strengthening aid harmonization and alignment around national

procedures. In Nicaragua, the action plan has been linked to results, together with a common, government-development partner work plan with strategies, a financial model, an institutional framework, and a budget linked to result-oriented indicators, including the integration of national and external resources within budget. Government and donors have worked together to evaluate the financial gaps, to ensure better coordination in planning, to raise political commitments and to strengthen inter-institutional relations. Coordination between development partners has resulted in more efficient resource utilisation.

In Uganda a Medium Term Expenditure Framework (MTEF) has instilled financial discipline into the budgeting process. Sector budget working groups have been set up, with stakeholder representation, in order to devise budgets within ceilings imposed for macroeconomic stability. These are then implemented through an integrated financial management system. Budgeting has also been decentralised with the centre setting guidelines, assisting and monitoring, all within an overall context of decentralized planning. District ceilings for conditional grants are set for school facilities, per capita grants having been introduced for recurrent expenditure (instructional materials, salaries, etc.) Indicators such as the targeted pupil/teacher ratio (PTR), the pupil/classroom ratio (PCR), the pupil/book ratio (PBR) and the pupil/latrine ratio (PLR) are used, by which those districts with high ratios carry more weight and receive more resources (the previous year's performance factored in with some weight). There has been a shift from the use of audits to stakeholder monitoring, which has served to improve accountability. However, a number of challenges remain, including capacity building and the retention of technical staff with limited pay, attracting and retaining students in school, post-primary access and school fees. Cultural factors, poverty, tendencies toward corruption by service-providers constitute non-educational, but still important, further challenges.

In the case of Vietnam, a simulation model was developed to forecast the financial resources and other inputs required to achieve the EFA goals and targets, and to assess their feasibility, in terms of human, material and financial resources, to set implementation priorities and to draw up action programmes to be included in the EFA plan and budget projections for each period. It helped to identify funding requirements, possible cost reductions and resource gaps. The model has served as a tool for dialogue amongst national and international stakeholders. The lack of regional coefficients, out-dated norms, linkage with MTEF comprise the remaining challenges.

The fact that in some countries, different levels of education are managed by different ministries of education was also raised as an issue. In many cases, there

are two or three (or even four ministries, in the case of Mauritania) that are dealing with education and training matters. This raises at least three categories of difficulties for simulation modelling: (i) the compilation of all the data required; (ii) consultation between all ministries of education and training; (iii) formulation of policy options that are relevant and necessary across the whole education system.

Theme 5: Education sector management

Weak institutional capacities were frequently reported at the workshop as one of the most serious challenges, constituting, in particular, real bottlenecks in the process of the devolution and decentralization of basic education management.

In Ghana, the education sector plan (ESP) was produced through a collaborative approach to education development, relying on a sector-wide approach (SWAp) for its implementation, the pooling of resources and the harmonisation of programmes and activities. An Education Sector Technical Advisory Committee (ESTAC) was established to advise and follow through ESP implementation and to oversee four thematic groups. The country has looked for further improvements in increased decentralisation, improved financial management, and M&E. However, insufficient planning and implementation capacity, the training and motivation of staff, achieving optimum and efficient resource allocation based on priorities and attracting teaching and non-teaching staff to deprived areas are the immediate challenges. Participants from Burkina Faso also reported that the required capacity building, as well as the steering committees, at decentralised levels, remain serious challenges.

In Honduras, Government established a sector roundtable to coordinate donors within the PRSP. However, there has remained a lack of coordination between government, civil society and the international development partners, as reported. The Government requires further consolidation of its financial planning, its partnerships with civil society and improved harmonisation of others' contributions with the government budget. Mauritania has established management and steering committees for educational development, but still needs to address weak implementation and evaluation capacities.

In Niger, the Ministry of Education has been assessing its institutional capacity for planning and management through a participatory approach. Two bodies have been set up: one in charge of programme execution, institutional development, communication and work plan development; and the other in charge of coordination of activities, statistics and impact evaluation. A National Council ensures the coherence of policies, and national and sectoral strategies,

coordinates donors, approves the work programme, follows implementation and deals with conflicts. Regional councils coordinate these functions at regional and sub-regional levels and are responsible for sub-regional communication. Local councils control local activities, manage infrastructure, equipment and learning materials and manage teachers' contracts. All stakeholders participate in annual reviews of plan implementation.

Other challenges were raised in the discussion, which can be grouped as follows:

- Access: if the supply side of education (classrooms and teachers) is often difficult to satisfy, in certain countries it is the demand for education which does not progress at a rate envisaged in projections.
- Equity: one can observe the classical dichotomy between rural and urban, boys and girls, rich and poor on top on the high private costs of education.
- Quality: three significant issues are teachers' qualifications, the pupil/teacher ratio and the availability of textbooks and other instructional materials.
- Internal efficiency: retention is the major challenge. EFA does not mean only 100% access to basic education but 100% completion of basic education. Certain countries have Gross Enrolment Rates greater than 100% at primary education, but weak retention rates. Repetition was also given as a principal reason for high drop-out in countries with high repetition rates, explaining, however, that efforts to reduce this rate rapidly have often encountered the stern resistance of teachers.

3.3 Country examples of simulation modelling

It was possible for participants at the Paris workshop to benefit from the experience of three countries whose experts facilitated most of the practical sessions on simulation models, and related the design and use of simulation models in Argentina, Mali and Mozambique. These examples are given below, highlighting their diverse contexts, especially of decentralization.

3.3.1 Argentina (Province of La Pampa)

The case of Argentina illustrates the application of simulation modelling to one decentralized province, as a means of piloting its application to other

jurisdictions and eventually the national integration of such provincial models.

One of Argentina's educational priorities is to improve governance and strengthen management capacity at national, provincial and school levels. Tools were developed to help to achieve a number of competing objectives under conditions of financial stringency. In particular, an education simulation model was developed and applied in the province of La Pampa, as a tool to aid decision-making.

Configuration of the Argentine education system

Argentina (almost 2.8 million of km²) has a population estimated at more than 36 million, of which almost half is concentrated in the territory that borders the port of Buenos Aires. The country is a federal republic composed of 24 provincial states. Each one of these states has its own Constitution, and each of the provincial educational authorities is responsible for maintaining and managing the education system under its respective jurisdiction, including approving the structure and the curricula of the cycles, levels and forms of education within the framework of agreements reached at the Federal Council of Education. At national level, the Ministry of Education ensures the implementation of the principles, objectives and functions of the national education system, which are defined by the Federal Council of Education, as well as the objectives and Common Basic Contents of the different levels and cycles. It is also in charge of the evaluation of education quality and supports specific provincial programmes.

In the early '90s, the transformation of the Argentine education system began (Federal Law of Education 1993), transferring to the provinces the educational services that the central government had previously provided. This normative framework resulted in drastic changes not only in the structure of the educational system, but also of the content of education as well.

Difficulties have arisen, in particular in relation to the location and reorganization of existing establishments, which were to be determined according to the implementation modalities of each province. There were also observed differences in terms of the organizational models adopted and the degree of implementation. Although the Federal Law of Education managed to improve coverage, especially extending the duration of schooling, the quality of education did not increase to the level anticipated. At present, different reform aspects are under review. A strong rationale for the development of a simulation model was that it would contribute to the educational reform, not least in improving the management capacity of the decentralized education services.

Why La Pampa Province?

The relatively small province of La Pampa was chosen for the development of a simulation model in Argentina on the basis of a number of criteria in order to test its applicability in Argentina as well as the transferability of the experience of La Pampa to other education jurisdictions in the country. The main criteria considered were the following:

- The province had completed the implementation of the educational structures proposed in the Federal Law of Education.
- The politico-educational problems of the province - in particular the results of the implementation of the Federal Law of Education - were representative of the national reality and, therefore, the “modelling” of La Pampa’s educational system would have a demonstrative value for other jurisdictions.
- The policy-makers had several years of experience in the management of the provincial education system and enjoyed political and technical recognition at national level.
- The provincial political direction had remained quite stable.
- The existence of an updated and reliable information and monitoring system, together with educational statistics of the last ten years were important factors. In addition, the province had information on the budget by programme, purpose and function.

All these characteristics made it an ideal site for pilot-testing a simulation model before its generalization.

How was the simulation model developed?

A simulation model, called LAPAMPASIM, was developed to simulate prospective scenarios for the education system of La Pampa Province. The main criterion was the *pertinence* of the model, so that it would reflect the provincial reality, mirroring the present critical problems in the education sector, such as the lack of coverage and the inequities, but also the realities of educational finance, educational resources, and the quality of education. These questions determined the issues that the model would help to respond to, translated in terms of the variables and relations between them.

The strategy adopted in developing the model was centred on the situation analysis and the identification of the high-priority areas, in close interaction and consultation with the provincial authorities and experts. As a result, a simulation model of sector-wide and provincial coverage was designed, whose primary

target was to support the evaluation of the sustainability of diverse strategies and the elaboration of a medium term development plan. The model enabled:

- simulations of various educational policy options and high-priority strategies for the province, selected through a process of consultation, experimentation and validation at provincial level;
- the evaluation of the possible consequences of different decisions, in particular, with respect to the necessary resources, including in-service teacher training, classrooms and instructional materials, and considering their effects, among others, on the coverage and quality of education; and
- the provision of appropriate responses to questions concerning strategies for reducing disparities in children's and young people's learning outcomes, which is the top priority problem in the country and the province as well.

How was the simulation model useful for the province?

Preliminary results indicated that the model was extremely useful in the following ways:

- It generated instantly projected data, whether pedagogical resources (human, equipment, infrastructure, etc) or their costs.
- It enabled an understanding of the educational behaviour of clusters of students by learning outcome and according to different modalities and education levels.
- It helped to quantify the needs of the system by type of resource and according to alternative scenarios.
- It contributed to designing, with high precision, specific programmes to overcome disparities in learning outcomes, such as teacher training, the provision of didactic resources, the design of welfare policies (scholarships, subsidies), etc.
- It enabled evaluation, through alternative scenarios, of the possible impact of different educational policy options and strategies, thereby providing a tool for planners to design realistic objectives, their costs and finance.

Perspective on the application of the model to other provinces and at national level

The simulation model successfully adapted the UNESCO approaches of *EPSSim* and *SIMEDUC* to the Argentine case. The approach is applicable to the other jurisdictions, since it is based on a number of parameters that are common across Argentine provinces, whilst giving due consideration to the differences and specificity of each: the application to another jurisdiction will require further

adjustments to take into account the specifics of that jurisdiction, as well as the interests and needs of the authorities and the hypotheses they wish to simulate.

The national Ministry showed interest in the application and use of the model in a recent presentation, along with a project proposal to implement the model in the other jurisdictions and integrate them at national level.

3.3.2 Mali (Decentralized implementation of PRODEC)

The case of Mali illustrates how a simulation model for the design of policy goals and implementation strategies at national level can contribute to the further specification of goals and necessary actions at sub-national levels.

The rationale

The Ministry of Education of Mali had designed a simulation model as a tool for formulating a ten-year national education development programme (Programme Décennal de Développement de l'Éducation – PRODEC) in collaboration with UNESCO and UNDP. However, this model had given little consideration to regional disparities and the ensuing need to develop different strategies for educational development.

Accordingly, the MOE Planning and Statistics Unit developed a regionalized simulation model. The regionalized model should enable communities to evaluate their needs for infrastructure as well as human, material and financial resources in order to achieve their educational goals.

The eventual aim is to make elected representatives at regional level more responsible for the management of the education system, to speed up school enrolment (universal school enrolment by 2015), and above all, to reduce disparities at national level between regions and at regional level between circles. Regional and sub-regional goals, while taking local specificities into account, would conform with the national goals set by PRODEC.

The process and scope of simulation modelling

The development of the decentralized simulation model started with the gross enrolment rate (GER) at primary education, set for regional level. This rate was estimated on the basis of the trends in these rates from 1994 to 1999 by region and the target GER in 2015 of 95%, with intermediate goals in 2004 and 2010 for each circle. The model encompassed the whole education sector, the development of different sub-sectors (basic education and secondary education)

being “triggered” by the rates of transition from one level of education to another. With this tool, regional decision-makers could measure the effects of their choices, in terms of the numbers of children to be enrolled, the classrooms to be built and the teachers to be recruited, together with their corresponding investment and recurrent costs.

Any substantial change in the structure of the model and its policy parameters was the subject of a consensus between the central and regional levels. For each region, the goals were set according to the regional context, while reflecting the national goals already established at central level. In light of the projections, the regional authorities, in consultation with local representatives, drew up regional educational development plans for onward submission for approval by national policy and decision-makers.

The model reflected the management capacity at the different administrative levels of the country. How the model took into account a particular level of decentralization depended first on the legal responsibilities of that level, second, on the actual availability of human and material resources for its operation and, third, on the availability of data (population, pupil numbers, personnel, finance, etc): the present and prospective conditions of regions, circles and districts are different.

The content of the model

The model was structured according to the organization and management of the regional education system. It covered basic education (lower and upper) as well as non-formal and secondary education: general, technical and vocational (each region possessed at least one secondary educational establishment). Higher education was covered only at national level, this being the level at which it is managed. For each level, regulatory criteria were set for access to the level immediately above it. Each level was structured into four inter-linked components: enrolments, teachers, classrooms and teaching materials.

The model was designed using MS Excel. The "data" sheet contains all data relating to the regional education system. It contains basic data by circle: projected school-age populations up to 2015 (between 7 and 12 for primary) by gender, pupil numbers in both public and private sectors, community schools and medersas (Islamic schools), numbers of teachers, schools and classes, internal inefficiency in basic education, etc. Data are also provided for secondary education and for the teacher training institute (IFM). The "hypotheses" sheet, structured by level of education, shows all the variables and goals pursued for the period up to 2015.

The "results" sheet displays the projections for basic education by circle. This sheet follows the structure of the regional education system (basic, lower and higher, secondary, general, technical and vocational) and presents the projected numbers and indicators (GER, GIR, number of teachers, number of classrooms, number of books and teaching guides, etc.), together with an indication of new requirements. Projections are presented by level and by gender. It displays, for example by level, the number of classrooms and teachers (taking into account pupil wastage and educational organization, e.g. multi-grade teaching, teaching or learning hours, etc.), and the necessary instructional materials (for primary and secondary levels), including community schools and medersas for every year until 2015. The annual intake requirements for teacher education institutions are given, as are the required number of graduates (recruitment of teachers).

Financial aspects such as the necessary recurrent and capital expenditure, together with the anticipated financial gaps, are projected in the "budget" sheet for the period covered by the model, namely to 2015.

3.3.3 Mozambique (EFA, FTI and sector planning)

Mozambican experience in simulation modelling illustrates the use of various simulation models to improve the planning process at its different stages: policy design, negotiation and dialogue, as well as action planning.

The design of a "demographic" simulation model

Mozambique has had a demographic policy simulation model since the 1980s. This model has been used to design various sector development plans, including the *Education Sector Strategic Plan, 1998-2003* and the *Plan of Action for the Reduction of Absolute Poverty, 2001-2005*.

In 2002, a new demographic policy simulation model was designed in order to respond to the Basic Education Curriculum Reform and to the need to develop credible EFA and FTI Action Plans. The new planning instrument was designed with UNESCO's support on the basis of the generic model *EPSSim*.

The new demographic simulation model allows very detailed resource projections based on statistical data and the designated policy objectives. A prerequisite of such modelling is the good database of educational statistics, which has existed in Mozambique since the early '80s, as a result of routine, annual data collection at the beginning and the end of the school year. Such a

database has contributed greatly to ensuring the reliability of resource projections; it has also facilitated the incorporation of policy options and financial variables, which had been utilised in the financial simulation model designed earlier with the World Bank for the FTI.

The model enables the design of various scenarios, based on different policy options, taking financial constraints into consideration, in order to demonstrate the sustainability of the development objectives in prospective socio-economic contexts. The construction of these alternative development scenarios facilitates considerably the extremely difficult decision-making process, which should encompass both the social demand for education and the country's means (and external partners' contributions) for meeting the financial costs of such demand.

“Decentralizing” the simulation model

Two additional models were designed in 2003 for planning at provincial and district levels, based on the national model, in order to decentralize the EFA planning, implementation, monitoring and evaluation processes and to address regional and gender disparities, in a transparent and sustainable manner.

The Mozambican simulation model, thus disaggregated at national, provincial and district levels, provides detailed projections of school enrolments and the accompanying requirements for human, physical and financial resources. The model makes it possible to estimate, by administrative level (national, provincial and district), the number of teaching and non-teaching personnel required, by category, and the number and percentage of female teachers, as well as foreseeing recruitment and training needs per year. The model provides information on the number of classrooms and other space requirements to be built each year, by education level and on future needs for textbooks and teaching guides. It gives advance information on the annual costs for plan implementation and on the budgetary gaps that need to be filled. Furthermore, it provides quantified indicators, which can facilitate the monitoring and evaluation of expected results.

In sum, combining the demographic approach with the detailed financial implications, the “statistical” simulation model can be used in planning exercises at various levels: to design, implement, monitor and evaluate different, credible education plans.

Further follow-up

The actual usefulness of the simulation models depends on their application. It

also depends on how the tools are disseminated and what appropriate training is provided. The Ministry of Education has provided training for key personnel from the provincial directorates, NGOs and donor representatives not only on the use of the model, but also in designing education plans, in particular for EFA.

Given the progress made by Mozambique in developing the model at national, provincial and district levels, an international technical workshop on simulation models took place, in Maputo, with the support of UNESCO, to train representatives of various African countries (namely Angola, Cape Verde, Malawi, Nigeria, Tanzania, Zambia, and Zimbabwe). The Mozambican provincial simulation model has been examined by Nigeria as a tool from which the country could develop a country-specific model and build the necessary institutional capacity.

The model was used as a key tool in developing the Education Sector Strategic Plan 2005-2009 (ESSP II) and its corresponding financial plan. It has contributed to designing the reform and development measures envisaged within the education system; it has also facilitated its own comprehensive dissemination and utilization in developing, monitoring and evaluating the provincial, district and school five-year implementation plans and their correspondent annual work plans.

4 The role of UNESCO: Responding to countries' needs and demands

4.1 Emerging needs and demands

Following the World Education Forum in 2000, UNESCO organized a series of country surveys in order to take stock of the status of EFA plan preparation and to assess the needs for additional support. Based on the analysis of the responses as well as on UNESCO's field experience, UNESCO drew up the following findings, which in turn have implications for defining and tailoring its support for EFA planning and implementation:

Status of EFA planning

In FTI countries, in particular those in sub-Saharan Africa, EFA plans are understood as sector plans, complemented by the FTI proposals, while a few cautiously state that there is still need either to extend existing plans or to have an EFA action plan, since sector or basic education plans give little to no consideration to “non-primary” EFA goals. In most Latin American and Caribbean countries, especially those of the Caribbean, their either existing or updated sector plans, incorporating the EFA goals, can serve as EFA plans, while in Asia the dilemma between EFA-specific and sector plans is more evenly balanced. Other countries, especially in Africa, but also in other regions in general, have developed EFA-specific plans in response to the six goals, often of a long-range nature up to 2015, in addition to sector or basic education plans, which indicates the need to further integrate the EFA goals into sector and multi-sectoral plans. Other common cases, mostly in Africa, comprise those countries in which plans have been prepared, but have not yet been approved or those countries that have reached the point at which they need to update or adjust their plans.

Scope of the plans for EFA achievement

Many countries have expanded visions of EFA, covering goals that relate to issues not explicitly stipulated in the Dakar Framework for Action, such as the

HIV/AIDS pandemic and civic education (sub-Saharan Africa) and life-long learning (Nordic and other European countries). Gender parity and primary schooling are the most frequently cited as ‘prominent’ goals in those countries with low enrolment, especially in sub-Saharan Africa, while the quality of education is the number one priority in most Pacific countries. In transition countries in Eastern Europe and Central Asia, the shift to a 12-year basic education seems to be the major preoccupation. In many developing countries, adult education (Goal 4) and quality (Goal 6) issues are insufficiently covered in their plans, implying that further work needs to be attended to in those areas.

Expenditure and financial frameworks in sector-wide development contexts

All developing countries (with few exceptions) indicate that they require external funding for the achievement of their EFA goals. However, in some countries, projected requirements, in terms of enrolments, educational personnel, infrastructure and educational materials have not been specified, either entirely or partly. In such cases, serious budgeting has not been conducted to project the likely domestic resources required, nor the financing gaps to be covered from other sources including external funding. Further work is necessary to calculate the resources required to implement all the EFA goals. In only a few countries (especially the “FTI countries”) were they able to provide the estimated percentage of the EFA-related budget (especially for universal primary schooling) which relies on external financing, with a range, where indicated, of between 10 and 80%. Furthermore, familiarity with “development frameworks” and new aid modalities (such as the Comprehensive Development Framework (CDF), Poverty Reduction Strategies (PRSs), the United Nations Development Assistance Framework (UNDAF), the Heavily Indebted Poor Countries’ (HIPC) Initiative, Sector Wide Approaches (SWAs) and direct budget support was much less widespread than would be expected. For instance medium-level income countries are not generally ‘au fait’ with such terminology, no less what lies behind it. Institutional capacity building for Government-led policy design, implementation and donor coordination has become a *sine qua non* of education development planning.

Sector planning and management

The political commitment of governments to EFA appears to be high across most countries. However, there are some nuanced reservations concerning the seriousness of the reform policies and the commitment of countries’ domestic resources to the EFA goals among some countries as well as institutional difficulties of governments attempting to engage in stable management processes in others. In some Asian countries, central government commitment

may remain high, but there is a need for more advocacy at local levels. Generally speaking, non-governmental stakeholders have been involved in the planning and implementation for EFA in many countries. However, difficulties persist in the work with NGOs, due to various reasons that have been cited, such as the need for consensus building on governments' priorities, the weak involvement of NGOs and the need for increased coordination.

For almost all developing countries, insufficient financial resources are the major preoccupation of governments. Not only are domestic resources insufficient, but many "difficult" aid-recipient countries complain about the conditionalities for benefiting from external assistance. In some FTI countries, funds might flow, but difficulties arise due to weak management capacities and the complexity of the different modalities of external aid. In other countries, although credible education budgets are announced, these often prove to be credible only on paper, and not in practice. Yet, there is need to utilize more efficiently existing domestic resources in many countries.

The issue of the lack of institutional and human capacities for the EFA implementation would seem to be a serious concern. Rigorous capacity building plans and activities are required not only in Africa, but also in many other countries. Planning and management capacities are particularly weak at the sub-national and/or school level in some countries. In some others, technical and capacity building assistance is required in particular areas (e.g. information systems, monitoring and evaluation, policy development and planning, teacher training and dealing with HIV/AIDs). Support for donor coordination is another important area requiring capacity building in several countries.

Three broad categories of countries requiring support in EFA planning and implementation can be drawn:

1st category: Countries that deem EFA as befitting only the developing world and therefore not requiring the preparation/strengthening of their plans as a follow-up to Dakar. This category comprises most OECD countries (with the notable exception of the Nordic countries, which are engaged in some form of EFA planning) and some transition countries. Experience-sharing among these countries, especially from the perspective of life-long learning, may prove to be an appropriate area requiring support.

2nd category: Countries that recognize their need for EFA plans but are still at the stage of preparing/strengthening their plans as a follow-up to Dakar. These countries can be divided into two sub-categories: (i) countries in social unrest, conflict and post-conflict situations, and (ii) countries that are so-called

“difficult” countries, receiving external assistance and which, therefore, see “no need to prepare a plan”. Serious, “customized” support, especially in planning, is urgently required for these countries.

3rd category: Countries that consider all or part of the EFA goals as relevant to their present circumstances and context and thus have been engaged in the preparation/reinforcement of their plans as a follow-up to Dakar. These plans have taken (or will take) a variety of formats, e.g. (i) sector plans, (ii) existing plans that have been revisited and strengthened in light of Dakar, (iii) EFA-specific plans of action, (iv) project-like EFA programmes, or (v) projects focusing on specific needs and areas such as quality improvement and life-long learning. The majority of developing countries and some transition countries fall under this category. Considerable and increased support is necessary for implementing their plans.

Another group of countries, which stands out as a separate category, comprise the so-called EFA FTI countries. Most of them state that their sector plans, complemented by the FTI proposals, have attended to EFA goals, and thus, that they don't need to prepare further EFA-specific plans, whilst a few cautiously express their concern that their plans are not inclusive of all EFA goals. In such least-developed countries, further policy support could be provided to “non-primary” levels of education.

In sum, by the mid-2010s, three general conclusions can be drawn in relation to countries' readiness for EFA planning and implementation. First, many countries have succeeded in formulating and reviewing their plans for EFA in response to the Dakar recommendations. However, in some, plans for EFA have still not been approved by the relevant government authorities. Another challenge awaits those countries having to update and/or adjust their EFA plans, for they must either keep up with new developments or move on to a new programming cycle.

Second, the nature and scope of the plans for EFA vary from country to country. Most advanced are those countries selected for FTI support. However, this initiative, focusing on primary school completion, seldom covers all 6 EFA goals. Some other countries, although requiring external financial support for the realization of EFA, not having made proper projections of their resource requirements are unable to estimate the resources needed from extra-governmental sources.

Third, a number of countries require not only external aid to fill the financial gaps, but also technical support for the operationalization and implementation of their plans for EFA. In such countries, weak institutional capacities, especially at

sub-national levels, are often bottlenecks, hampering the smooth implementation of their plans, and calling for serious consideration of a concerted strategy from UNESCO, as well as its development partners.

4.2 Perspective on UNESCO's role

The analysis of the findings of the various surveys as well as feedback from field work and workshops (some of which are presented in the previous sections) indicates some emerging needs in the field of educational planning and resource mobilization.

The following areas would appear to require concerted technical support in many countries on the part of UNESCO and other IDPs:

- Cost analysis and budgeting techniques
- Strategic planning, notably in relation to policy and strategy formulation
- Technical and methodological skills in action planning
- Aid coordination, especially within SWAps
- Institutional capacity building
- Information and monitoring systems

Among these, UNESCO's role in SWAps, sector analyses and simulation modelling has become a prominent necessity. It is to provide technical assistance and capacity building support to ministries of education in order to strengthen government leadership, especially in aid-dependent countries. This entails the capacity building that is appropriate to the whole of the education sector and not merely the particular sub-sectors in which development partners have been interested sequentially.

In this regard, country representatives in international gatherings, such as seminars and workshops, as well as during the fieldwork of UNESCO specialists, underlined the importance of sector-wide planning: mixed feelings were expressed about FTI, due to its sole focus on primary education; in addition, the challenges presented by the social and financial demands for secondary education were recognised. It was also pointed out that the scope for sector-wide monitoring and evaluation seems to have been narrowed by the sub-sectoral focus of international frameworks such as EFA, FTI and the MDGs.

Countries recognised the need for a greater adoption of programme approaches, such as SWAps, which help to improve the coordination of efforts of

development partners and avoid the fragmentation of the sector. The formulation of sector plans is seen as an important development in national education systems, providing a framework for coordination, the optimal use of resources, and more effective delivery. Countries were calling out for EFA partners' collaboration in the development of long-term education sector plans in order to establish government-led, effective, operational and sustainable donor coordination for the achievement of the EFA goals.

Increased community and civil society participation was also recognised, as well as the creation of appropriate institutional frameworks for public-private partnerships and the engagement of NGOs, CSOs and religious groups actively in support of education sector plans.

Clearly, EFA and other sub-sectoral planning should be integrated within sector-wide educational planning. The move toward sector-wide planning and donor coordination around national strategies in aid-dependent countries has been a means toward ensuring that the priorities for education development are those of the country's and not of the development partners just because they are willing to fund particular educational sub-sectors. The role played by resource projection modelling in this regard is unparalleled.

UNESCO has maintained its overview of the whole of countries' education sectors, mirroring and supporting the sector-wide planning in which countries are naturally engaged. Because UNESCO has no strategic interest in any particular country, and specifically because it is not a donor or development bank, it is able to play the role of 'a friend in court' for Member States or an 'honest broker' between Member States and their development partners. This entails providing capacity building directly, but also the technical advice and professional support to enable countries to choose not only what suits their needs from amongst the willing development partners, but also the appropriate modalities of support provided by them, including capacity building and further technical assistance.

Where feasible, UNESCO should give 'voice' to Member State governments in order to choose what will assist them in their normal, day-to-day planning within ministries of education. In response to these needs and demands, UNESCO is called upon to provide necessary support in the aforementioned areas in the form of:

- direct in-country technical assistance,
- technical workshops in the field of sector-wide approaches, educational planning, policy simulation and resource projections,

- experience-sharing on critical issues that are common to groups of countries, and
- dissemination of experience, lessons and best practices in EFA planning and implementation.

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Annexes

Annex 1: Record of the UNESCO Technical Workshop on Sector-Wide Education Resource Projections

(6 to 10 June 2005, UNESCO Paris)

Education planners from twenty-five countries gathered at UNESCO Headquarters from 6 to 10 June 2005 to exchange their experience on national policy planning and implementation, to construct sector-wide education resource projections in the context of EFA planning and implementation, and to discuss future cooperation with UNESCO in support of countries' needs and demands. A significant part of the workshop was devoted to provide the participants with practical tools to adapt the generic demographical policy simulation model *EPSSim*, to the country-specific policy formulation and planning needs.

Sector development planning remains UNESCO's strategic focus for support to Member States in educational planning, management and implementation. UNESCO's position, in line with the Dakar Framework for Action, has been to ensure the integration of all the EFA goals within wider education sector development plans. Despite the progress made in EFA planning, the conclusions of the workshop were the following: (i) that there is a clear need for UNESCO to strengthen its support in strategic planning, notably through policy simulation at country level, as a significant number of national plans neither have costing nor projections of budgetary resources, and where costing is available, it is often limited to primary education; (ii) that there is also a real need for UNESCO to play a greater role supporting Member States in their coordination of development partners' efforts.

Background

Based on a series of surveys (2001, 2002, 2004) organized by UNESCO (Division of Educational Policies and Strategies – ED/EPS) to assess the status of EFA planning and implementation, it is evident that the process in most countries is well underway. Predominantly, EFA national action plans have been approved and integrated into wider sector plans. However, cases remain in which the plans do not accord due consideration to non-primary education EFA goals. In order to ensure that all countries have the necessary support to achieve all EFA goals, ED/EPS organises capacity building workshops for Member States to orient them to different approaches to policy simulation, planning, management and implementation within sector-wide frameworks.

Expected results

The aims of this Paris Workshop were: (i) to enable an exchange of experience in national policy planning and implementation in the context of EFA; (ii) to build on this experience for engaging in and/or completing the policy formulation and costing for all EFA goals within such sector-wide frameworks; and (iii) to discuss the ways and means of better tailoring UNESCO's support to countries' needs and demands.

Workshop Programme

After an opening session that highlighted progress made in EFA planning and implementation across countries, the remainder of Day 1 consisted of thematic country presentations in the following areas:

- EFA Goals in national education sector and socio-economic development contexts;
- Partnerships with civil society, NGOs and the private sector;
- Donor coordination, aid harmonization and alignment with country strategies;
- Expenditure frameworks for education sector development; and
- Education sector management.

On Day 2 the plenary was divided into three language sub-groups for more in-depth discussions on: a) the current status of education sector plans; b) resource projections and financing frameworks; and c) major issues, lessons and challenges for EFA achievement.

The OECD made a presentation on ODA aid flows specifically for education (highlighting post-Dakar), followed by a brief intervention on aid effectiveness and the Development Assistance Committee (DAC) perspective on SWAps.

After an introduction to policy simulation in education and to EPSSim simulation in the plenary, the workshop divided country participants into three language groups. Participants were given a simple pre-simulation exercise on preschool education to familiarize them with the EPSSim environment and terminology. Throughout Days 3 and 4, sub-groups continued to work on simulation exercises adapting the model to each country's national education planning context, and discussions and exchanges took place among the participants.

The participants reviewed the structure and terminology of the generic simulation model from the perspectives of their own countries' education systems and requirements. Although the workshop carried out similar exercises for the other types and levels of education, due to the limited time, the number of participating countries and the lack of required data, emphasis was placed on primary education, the assumption being that if participants could master the simulation of primary education, they would be able to make projections for the other types and levels of education. Participants entered data and various education policy options/development hypotheses and subsequently analysed the simulation results and constructed alternative development scenarios according to the financial constraints and given macro-economic and budgetary frameworks. Such work was carried out by country representatives having brought with them their education development plans, as well as policy and specified baseline data completed in advance for the technical exercises.

Discussions were held around the advantages and limitations of the simulation tools, as well as the use of policy simulation in the context of SWApS and sector development planning.

On the sidelines of the workshop, programme officers from UNESCO field offices met to discuss the challenges and issues of adopting more coordinated support to countries for EFA planning and implementation in sector wide contexts.

On Day 5, feedback was given and recommendations were made by each group on the simulation model and its applicability, and a series of presentations were also made on the proposed UNESCO strategy for cooperation with its Member States. These included presentations on Sector Wide Approaches (SWAp), the demonstration of a generic EMIS software, national monitoring and evaluation systems, UNESCO's Country Education Policy Status (CEPS) papers, the creation of an E-Network on Educational Management and Planning (E-MAP), and UNESCO's Extra-budgetary Programme for Capacity Building for EFA. The wrap-up session, which included a preliminary glimpse of the Workshop evaluation by participants, brought a close to the programme.

Participants

Each country was represented by two people from ministries of education, one senior level education planner and another specialist in education statistics, both of whom are involved in mainstream national sector planning and EFA implementation. In some cases more than two country representatives attended the Workshop, funded either through their MOE or active partners. The 54 participants represented the following countries: Bangladesh, Bolivia, Burkina

Faso, Cameroon, Congo, Democratic Republic of Congo, Ethiopia, Fiji, Ghana, Guyana, Honduras, India, Malawi, Mauritania, Mongolia, Mozambique, Nicaragua, Nigeria, Niger, Pakistan, Samoa, Uganda, United Republic of Tanzania, Vietnam, and Yemen.

Ten UNESCO field offices attended the Workshop, from: Amman, Beijing, Beirut, Cairo, Harare, Islamabad, Maputo, New Delhi, San José, and Tashkent.

Feedback and evaluation

Advantages and limitations of simulation models. The simulation model was recognized by the participants as a powerful, comprehensive tool for sector-wide education planning and resource projection, able to encompass all types and levels of education and their financial implications. They also considered the model user-friendly, well designed and sufficiently flexible to be adapted to each country's specific needs.

Despite the general approval, the participants considered EPSSim as requiring too detailed disaggregating. Others considered the need to adapt and expand the model in order to respond to some other needs (e.g. urban vs. rural, children with special needs).

The participants said that there was need to:

- Continue adapting the model to each country specific needs.
- Improve the data collection and analysis, according to the planning and resource projection needs, including macro-economic, cost and financial data.
- Improve the knowledge on the country education system (types and levels of education and corresponding policies) as well as the capacity to formulate policy options/hypotheses.

Evaluation. Two evaluation questionnaires were circulated to and completed by participants, to obtain feedback for improving capacity building activities and support to Member States. One, completed by each country, concerned the status of EFA planning, UNESCO's support in the context of the EFA action plans, and its future support for educational planning, management and implementation. The other concerned the workshop itself, including the areas of interest for future cooperation with UNESCO. The findings are:

Regarding EFA planning:

- With the exception of one country, all have elaborated an EFA Action Plan, most of which have been approved by the Government, and the majority

have begun implementation.

- Most countries have a sector-wide education plan and the EFA plan (or EFA goals) has been integrated into the sector plan. However, a few countries pointed out that some of the goals, notably concerning ECCE and non-formal education, have not been fully integrated as yet.
- During the elaboration of their EFA plans/goals, most countries reported that UNESCO's support was in a specific area, notably financial and technical support for EFA national action planning, capacity building in policy simulation and EMIS, and support in the area of non-formal education. In terms of on-going support, some cluster offices have been active in organising consultations on EFA, on the monitoring of progress, and the inclusion of new strategies. Other support has been in the form of reinforcing institutional capacities.
- In terms of UNESCO's future support for educational planning, countries requested more active participation in donor coordination processes, assistance with the integration of EFA plans/goals within sector-wide plans, further training in planning, EMIS, monitoring and evaluation, needs assessment, greater coordination with MOEs, institutional capacity building, improving the quality of education, data collection for non-formal education, financial support and further training and adaptation of the simulation model to national contexts.

Regarding the Workshop itself:

- There was a general level of satisfaction with the travel and other preparations as well as on-the-spot support. Highest ratings were for distribution of documents and other materials.
- Workshop activities, notably country thematic presentations, and discussion by language group were very much appreciated, as well as the simulation exercises in particular.
- All participants affirmed that they would use the EPSSim model upon return to their countries.
- They found the model to be comprehensive, sound and adaptable. Intended uses noted were: for sector planning, including EFA, for policy dialogue to inform decision making and to advocate increased funding, and for improved EFA implementation.
- Many expressed the need to further adapt the model to their specific country contexts and for in-country workshops in order to take it to the state and provincial levels.
- The exercise gave them a glimpse of the education sector as a whole, the inter-connectedness of sub-sectors, and the consequences and impact of policy decisions on other sub-sectors, the importance of sector-wide planning and of updated and reliable data.

- They found the exchange between countries very fruitful, however they expressed that there were not enough trainers and desired more time for exercises.

Conclusions

According to the country reports to the Workshop and the clarifications from the participants during the working group sessions on the simulation model, one can draw the following conclusions:

- Most of the countries have EFA Plans, but only some have aligned the EFA planning exercise with the sector-wide education planning process.
- Very often education projections do not cover the six EFA goals, are not broken down by year and do not include the financial requirements.
- Very frequently countries have to look for more resources to ensure the six EFA goals.
- Very often countries do not have education/EFA plans of action, at different levels.

The simulation model is not a panacea. Furthermore, for its operation, it requires considerable capacity in data collection. However, building on such a base, it provides an extremely useful way forward, by facilitating and improving, among others, the following processes:

- data collection and analysis, improving the information and knowledge of the system;
- the integration of EFA plans in the sector-wide education planning process;
- resource mobilization at national and international level, improving the needed transparency and accountability;
- the design of implementation plans, at different levels, taking into consideration the financial requirements and examining the share of responsibilities and decentralization;
- more effective and rational use of available resources;
- the monitoring and evaluation of the education/EFA plans.

Thus, it is extremely important to continue investing in improving sector-wide planning capacity at country level, not only making the simulation model more responsive to country needs and supporting the needed training process, but also contributing to the development of education management information systems (EMIS) wherever necessary. The Workshop highlighted:

- The need for UNESCO to strengthen its support in strategic planning, notably through policy simulation at country level to ensure informed policy dialogue and credible plans.
- The need for UNESCO to play a greater role supporting Member States in their coordination of development partners' efforts, resource effectiveness, and sector wide planning.

Annex 2: Guidelines for Country Presentation

In order to facilitate the preparation by participants of country reports, a set of guidelines was designed and forwarded to ministries of education. Based on these guidelines, national reports were prepared for presentation by participants at the workshop.

Country: _____
Date: _____
Presented by: _____

1. Current status of the EFA and/or Sector Plans in the country (1 page):

Summarize the current stage of education sector development planning and implementation with reference to EFA (including FTI, if relevant). If possible, please relate the description to your country's PRSP and the strategies for achieving the MDGs.

2. Partnerships with development agencies and civil society (1/2 page):

Describe the partnerships (both with multi/bilateral agencies and civil society) as well as the donor coordination mechanisms in place for education sector development in general and for EFA achievement in particular.

3. Financing and expenditure frameworks (1 page):

Explain how public expenditure is established for overall socio-economic development in general and for the education sector in particular. Describe the country's budgeting procedures and practices for short, medium and long-term development, with specific reference to those in place for the education sector.

4. Resource projections for EFA (1/2 page):

Describe the state of EFA projections in terms of enrolments, education staff, buildings and equipment/material. To the extent possible, specify whether your country has made multi-year costings for educational development in general and for all EFA goals in particular.

5. Challenges for EFA achievement (1 page):

Provide your critical appraisal of the EFA (and, if relevant, the FTI) processes in your country: e.g. planning for all EFA goals (preparation of the FTI proposals, if relevant) donor coordination, institutional capacities for sector management, plan implementation, monitoring and evaluation, etc.

6. Additional observations:

Provide here any other observations, remarks and opinions, which you wish to raise.

Annex 3: List of Participants

“UNESCO Technical Workshop on Sector-Wide Education Resource Projections” (6 to 10 June 2005, UNESCO Paris)

Bangladesh

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