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Technical Note



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Building Capacity in Management and Financing in the Road Sector

Meeting the Challenge

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THE INSTITUTIONAL SETTING

The road sector is going through a period of substantial change. Countries are having to keep pace with expanding demand for road infrastructure as well as addressing the backlog of maintenance and its underlying causes. This situation has given rise to significant institutional reforms as countries have sought to improve road management through for example creating commercially oriented agencies, and increasing the flow of sustainable, dedicated financial resources to the road sector.

Designing appropriate institutions and constructing stronger road management systems is a necessary but not sufficient condition for sector performance improvement. Institution building requires human resource development – and the development of capacity and competences must take into consideration a broader range of needs than in the past. This is now recognized within Sub-Saharan Africa (SSA) where sector institutions have suffered more than most from a shortage of skilled personnel, and moreover, from difficulties encountered in retaining them.

THE PROFESSIONAL STAFF NEEDS OF SUB-SAHARA AFRICA

In SSA, the establishment of road funds (which now number about 24) and the creation of autonomous road agencies (now in at least 12 countries) have created a burgeoning need for professional staff with the requisite financial and managerial skills to effectively pilot and help develop the new institutions. How effectively are these needs currently being met? What must be done to gear up support provided to capacity building in the areas of management and financing bearing in mind the growing number of SSA countries implementing road sector reforms (30 plus and counting); the number of new institutions that are in the process of formation – or of restructuring; the reality of staff attrition and turnover.

TRAINING FOR CAPACITY BUILDING

Building – and then sustaining – capacity for road sector management is most likely to be achieved by a combination of factors. Solid educational achievement and basic training in key professional disciplines – engineering, economics, accounting, etc. – are the key building blocks. The institutional work environment and incentive structure then also play a critical role – how well are skills productively employed in achieving outputs, how



appropriately are skills and experience rewarded. This note focuses on a third set of factors, post-experience training in disciplines including, but not limited to, management and finance to enable the new institutions and the governments concerned to reap the benefits of international best practices and to effectively internalize the key lessons of experience. Formal education to masters level (or higher) has a role to play – but the argument here is that short course programs aimed at an executive audience can be considered a highly effective and timely means of delivery of the benefits of training. These programs allow SSA countries not only to learn from each other but also from experience outside the region.

THE CONTRIBUTION OF INTERNATIONAL AND REGIONAL TRAINING

Anglophone SSA countries have been able to benefit in recent years from the offerings of the International Road Federation (IRF) courses and from the Senior Road Executives Program of the University of Birmingham. IRF has provided opportunities notably in contract management and also in road asset management and road safety. The University of Birmingham, which has been actively supported by the Sub-Saharan Africa Transport Policy Program (SSATP), the World Bank and external partners such as the European Union and the Department for International Development (DfID), has developed an annual program delivered in a number of modules through which participants can qualify for a Certificate in Road Management. The recent program modules concern *innovations in road management*, *road financing and road fund management*, and *road asset management*. For the most recent years, the tables below present the extent of SSA participation in the Birmingham program.

Table 1. Anglophone Training at University of Birmingham – All modules (training weeks)

	2001	2002	2003	2004
Total	60	109	65	122
SSA	41	76	26	45
of which				
Kenya	8	19	3	9
Ghana	2	6	8	12
Zambia	3	8	3	6
Tanzania	2	12	3	-
Nigeria	3	5	-	9

Overall just over 50% of participants have been drawn from SSA, a slightly higher proportion of 55% for the finance module. About 70% of SSA participation has come from 5 particular countries – Kenya, Zambia, Ghana, Nigeria and Tanzania – out of a total of 18. In

addition Lesotho, Malawi, Namibia, Sierra Leone and Uganda have regularly sent a number of participants to the course. To some extent, the cost of participation for SSA is a draw back (the course is run on a cost recovery basis). This is somewhat offset by the large majority of SSA participants benefiting from financial assistance from the donor community. For those who have participated, the feedback is largely positive and the benefits to the concerned individuals are evident. The impact of the training on the sponsoring institutions however is not always easy to measure.

Table 2. Anglophone Training at University of Birmingham – Finance module only (training weeks)

	2001	2002	2003	2004
Total	23	32	25	43
SSA	21	21	8	18
of which				
Kenya	3	4	1	4
Ghana	2	1	3	5
Zambia	2	4	1	2
Tanzania	1	2	-	-
Nigeria	2	2	-	4

THE MAIN CHALLENGES FACED

From the starting premise that this type of training is making a positive contribution, the note now goes on to identify and discuss five specific areas of challenge like:

- (i) Ensuring that the total offer of capacity building opportunities really responds to quantum of demand, including that in languages other than English;
- (ii) Involving regional associations in meeting demand and strengthening program design;
- (iii) Sharpening the definition of the specific sub-markets within the overall demand and developing relevant offerings;
- (iv) Promoting the wider involvement of training institutions including those in SSA; and
- (v) Developing and disseminating materials for communicating innovations, and on findings and recommendations for improved road management.

STRATEGIES FOR RESPONDING TO THESE CHALLENGES

Assessing Aggregate Demand. Experience to date does not give an indication as to what the extent of demand might be – and the extent to which that demand may be price sensitive (including location). Institutions already involved in the provision of training – and those that may be interesting in doing so in future – would be interested to know. It would be a useful exercise to carry out the necessary surveys and plan accordingly. At least it can be said that there is a Francophone demand - hardly met at all before – for which offerings of the École Nationale des Ponts et Chaussées (ENPC) have been mounted with the assistance of SSATP. The table below indi-

brates the numbers that have been accommodated in the first two years, and the unsurprising preponderance of SSA participants in that number. Preferred DRR former staff in the selection of trainees.

Table 3. Francophone Training at École Nationale des Ponts et Chaussées (training weeks)

	2003 (all)	2004 (finance only)	2004 (all)
Total	31	17	50
SSA	30	15	46
of which			
Cameroun	-	6	8
Chad	5	1	5
Madagascar	9	-	6

However, thus far, the primary training delivery is from Europe and dependent on two institutions. Prima facie, increasing the number and diversity of potential institutions may be strategically sound. How to involve SSA institutions is discussed below, but there may be other options to explore, such as shown by the recent International Road Federation (IRF) training offered in Brazil.

Involving Regional Associations. There are growing number of sector specific associations in SSA – such as the newly created Road Fund Association (ARMFA), the reorganized Road Managers and Partners Association (AGEPAR) as well as professional networks such as SITRASSⁱ and IFRTDⁱⁱ. These associations provide access to a community of practitioners with specific needs representing different segments of the broad demand for capacity enhancement. Associations could readily be more involved in the development of demand – identifying suitable country level partners; developing criteria for candidate selection; organizing in-country workshops, including training of future trainers from local institutions; advising on dissemination of lessons learned from past training. In the longer term a role in delivery of knowledge might also be envisaged.

Developing Specific Markets. Finance and management training is not offered exclusively to road agency or road fund executives – government ministries may benefit, and indeed the private sector and external partners too. There perhaps exist at least four core markets whose needs may overlap but not be identical. These would be (1) technical managerial staff; (2) middle and senior line road managers; (3) executive boards; (4) senior government decision makers. Set out in the table below is an illustration of how the training offerings could be differentiated to serve their needs. More attention probably does need to be given to groups (3) and (4). This because countries engaged in implementing reforms have clearly stated poorly briefed boards and of-

ficials – and the antagonism to reform in some government circles – are obstacles to changes that have to be addressed.ⁱⁱⁱ For board level training, some past initiatives of the Zambia National Roads Board have produced interesting results. In addition, “Tariff and Traffic”, a strategic game developed by the SSATP, could be more widely used in training road fund boards in strategic planning and decision-making.

Promoting the Role of Regional Training Hubs. Initially for the Anglophone training, now relatively well established, the notion is to devise a strategy to “roll out” the training and thus, provide more courses – including modules tailored to specific markets; train more participants; involve local institutions whose capacity in turn could be strengthened. In principle, the same process of “decentralization” could be applied to the Francophone training, with special regard to markets (1) and (2), though this is not in place yet. For Anglophone countries, the process started with training offered on a regional course run in September 2003 in Ethiopia for 19 participants. The University of Birmingham has started partnering – in 2003 with the University of Pretoria for a 2-week course that attracted some 28 participants in November 2003, and in 2004 in a planned collaboration with the University of Nairobi. The ultimate idea is perhaps to have three (or more) “poles”, one each in Southern, Eastern and Western Africa, which in the aforementioned partnership could provide high quality training to a wider range of participants at a lower cost per head. It would be expected that over time the regional institutions could play a progressively larger role – helping to develop and deliver course material and carrying forward some research activity in related areas. A lot of initial support would be needed however to train trainers, develop facilitation skills, and promote client orientation.

Diversifying Course Material. Meeting an increased and more diversified demand for the development and use of course material that can meet the needs of different markets – as well as ensuring

General Matrix for M & F courses						
Components		Market sectors				
		Technical	Mid/Sen managers	Executive Board	Senior Government	
Finance	Underlying principles	Yes	Yes	Yes	Yes	
	Income streams	Sources	Yes	Yes	Yes	Yes
		Calculation of charges	Yes	Yes		
	Fund Management	Institutional		Yes	Yes	Yes
Systems		Yes	Yes			
Management	Underlying principles	Yes	Yes	Yes	Yes	
	Institutional Structures			Yes	Yes	Yes
	Systems	Operational	Yes	Yes		
		Financial	Yes	Yes		

comparable access to documents in English and French. Experience with management and finance courses to date demonstrates the value of case study material drawn from SSA experience. Also, as far as technical and line management is concerned, it is usually not a matter of persuading participants of the benefit of reforms – it is more a case of providing the tools for them to do a better job in

influencing key decision makers. SSATP is well placed to provide this material directly – or to encourage its development by others, inter alia by the SSA training institutions for case studies. Taking SSATP products as an example, case studies can take the form of in depth country specific analyses, such as the Uganda and Tanzania discussion papers^{iv}, or may take the form of a review of experience across a number of countries, such as on road fund performance and on road toll experiences. In the case of tools, the SSATP has again a potentially important role to play, as demonstrated by two applications: the Roads Economic Decision (RED) Model^v, now available in English and French, to assist planning investment and maintenance strategies on low volume roads; SOURCE^{vi} (standard overall ultralite road care estimate) to provide a common overall indicator of network service levels.

THE IMPACT OF TRAINING

Training providers, country sponsors and the external partners which provide funding are all interested in ensuring that the training has an impact on institutional performance, which in turn translates into improved outcomes for the road sector as a whole. This does not happen automatically – advance strategy and careful planning and implementation are though likely to raise the probability of success.

What are some of the measures that can be taken?

- Participants should be selected primarily on the basis of who has most to contribute to institutional goals;
- Each participant needs to have specific agreed objectives for the training – after the training the results need to be captured through a monitored implementation plan; and

- Timing of training should to the extent possible be tied to specific decision points - or harmonized with planning and strategic cycles within the institutions to enhance the results.

Experience suggests that the impact of training can be improved if participation is undertaken by a team rather than by individuals. Three following examples illustrate the types of benefits that countries can derive from this approach:

- Kenya who (along with Laos) sent the entire membership of the newly established Roads Board to attend the Senior Road Executives Program in 2000 in order to orientate the team to its new task;
- Zambia who successfully utilized the same program in 2001 and 2002 to help prepare and adopt a revised road sector institutional structure, the first team to complete the reflection on the policy and legislative framework, a second team to plan the implementation; and
- Chad who presented the reform of its road fund as a case study at the first Francophone training in 2003, and used the feedback to help finalize its strategy.

CONCLUSIONS

Post experience training in road management and financing offered by established training providers can add significant value to capacity building programs of SSA road sector institutions. There are a number of dimensions that could be fruitfully pursued to enhance the impact of training, with particular regard to cross country experience and sharing of best practices. As this note has set out, these include – further work on demand assessment; widening the range of training providers involved, with regard both to location and language; sharpening the definition of markets and differentiating delivery strategies; involving regional sector associations in market development and in dissemination; diversifying course material, including case studies.

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ⁱ Solidarité Internationale sur les Transports et la Recherche en Afrique subsaharienne

ⁱⁱ International Forum for Rural Transport and Development

ⁱⁱⁱ Pinard, M.I. and S.M.A. Kaombwe “Implementation and Impact of RMI – A survey of stakeholders in seven countries” SSATP Working Paper no. 62, December 2001

^{iv} Kumar, A., A Contrasting Approach to Road Reforms SSATP Discussion Paper No.1 and A Review of Road Sector Rforms in Tanzania, Discussion Paper No.2

^v Archondo-Callao, R., “The Roads Economic Decision Model – Software User Guide and Case Studies, SSATP Working Paper No. 78, July 2004

^{vi} Fernique, L.: “SOURCE – a large scale benchmark tool for road networks” SSATP Note 34, February 2002