

# **INSTITUTIONAL CAPACITY BUILDING WITHIN THE ROAD SECTOR IN DEVELOPING COUNTRIES – SOME EXPERIENCES AND STRATEGIES**

J. Odeck, M. D. Langaas and K. Bjørvig

Norwegian Public Roads Administration, Po box 8142, 0033 Oslo-Norway

## **Abstract**

*This paper discusses the issue of institutional capacity building (ICB) within the road sector in developing countries. It raises the question on what ICB is and how it should be understood. It further presents findings from a review of selected road sector projects aiming at institutional reforms. The paper suggests that ICB should be appropriately defined to include both the tangible factors (technical competence and organizational framework), and also an understanding of the intangible factors (social arrangements). From the review, it appears that ICB has not worked well because it has not been appropriately put on the agenda to include both the tangible and the intangible factors. The intangible factors are often ignored or underestimated.*

*Further, the review shows that the sustainability of institutional reform processes strongly depends upon political commitment, stakeholders' ownership of the objectives and processes, and mechanisms to secure and allocate resources. Demand driven processes are more likely to be sustained. The time required for institutional reform processes to yield results should not be underestimated. Reform processes are often hampered by complex bureaucratic structures and decision-making. The public sector salary levels are often low and not competitive with salary levels of the private sector. Apart from facing problems with recruiting and retaining qualified staff, the low salary levels make Government organizations prone to corruption and misappropriations.*

*The paper proposes that ICB should be seen as an instrument for creating good governance and integrity as good governance is about having effective and efficient institutional and management arrangements and integrity is based on transparency, accountability, predictability and credibility.*

*This work has been carried out as part of the work of the PIARC Commission on Technological Exchanges and Development.*

## 1. Background

In the recent years, Institutional Capacity Building (ICB) as means of improving road conditions and thereby help in alleviating poverty has preoccupied PIARC. According to Resolution Council/03/8 for the 2004 - 2007 work cycle, the Technological Exchanges and Development Commission opted to cover a plan of action with several topics pertaining to road transport including ICB. In its topic 7, the Commission has the objective to promote the systematic identification, analysis and review of key issues for road development in developing countries and countries with economies in transition. As a first step to achieve this objective, the Commission's strategy and line of action has been: (1) to prepare an introductory position paper on institutional capacity building, (2) circulate the paper to obtain feedback from technical committees and other PIARC bodies, (3) in coordination with technical committees, develop seminars to discuss the topics addressed by the paper and (4) incorporate specific initiatives and concerns for future technical committee work plans.

This paper is the introductory position paper on ICB named above. It has the following objectives: (i) to describe what ICB is and how it should be understood, (ii) describe some strategies for ICB that have been used in the past, (iii) survey previous aid programmes on roads so as to identify the extent to which the goal of ICB has or has not been achieved and (iv) draw some challenges that face ICB in the road sector.

## 2. What is Road Transport Related Capacity Building?

Capacity building is currently one of the leading issues in the development community including the supply of road infrastructure in developing countries. Developing countries declare that they need it, donor countries are keen at delivering it and the executing agencies are being held accountable for delivering or not delivering it. Yet the concept of ICB remains complex and difficult to grasp and operationalize in the design, execution and evaluation of development projects. There is thus a need for PIARC to have a joint understanding of the concept and how to incorporate it more systematically in its work.

This brings the discussion on what *capacity* and *capacity building* is all about.

ICB encompasses three main activities<sup>1</sup>: (i) skill upgrading, (ii) procedural improvements, and organizational strengthening. Thus, road transport related institutional capacity building refers to investment in people, institutions and practices that will enable developing countries and countries with economies in transition to achieve their road transport development objectives.

Defined in this way, ICB occurs by acquiring resources (human, financial, networks, knowledge, systems and culture) and integrating them in a way that leads to change in individual behaviour and ultimately to more efficient and effective operations of institutions and organizations.

However, ICB also has to do with two types of capacity that are emphasised; *tangibles* and the *non-tangibles*. The tangibles include physical assets such as infrastructure, machinery, natural resources, health of the population and education. Organizational structure and systems, legal frameworks and policies are also included in this category. We can refer to the tangibles as *hard capabilities*.

---

<sup>1</sup> This is the most frequent definition found in the World Bank documents

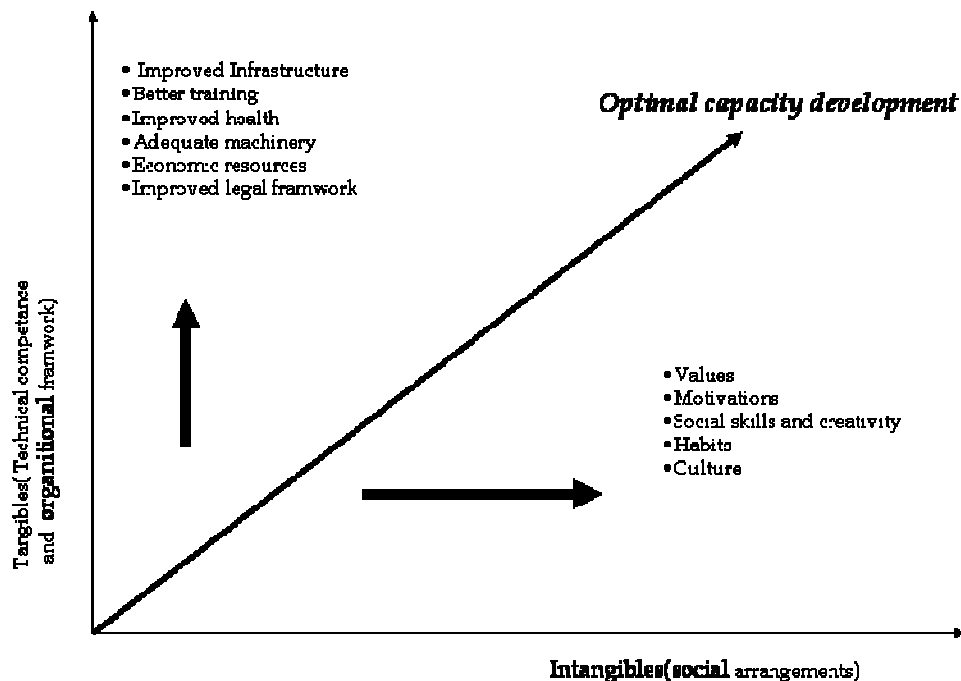
These are factors that generally are amenable in either physical term or in terms of indices. The intangibles on the other hand has to do with social skills, experience and creativity; social cohesion and social capital; values and motivation; habits and traditions; institutional culture etc., and hence may be referred to as *soft capabilities*. These are normally difficult to quantify. Others may term these capabilities as “core” capabilities as they refer to the creativity, resourcefulness and capacity to learn and adapt of individuals and social entities.

In ICB, the intangible capabilities are as important as the tangibles because they determine how well a given society use the other resources at its disposal. They are what allow them to realize their human and social potential to the highest possible level.

To achieve a proper and balanced ICB a balance is required between the tangible and intangible capabilities. This is illustrated in figure 1.

What the figure illustrates is that, institutional development is more likely to succeed if they promote both the tangibles (technical competencies and organisational framework) and intangibles (social arrangements).

**Figure 1: Balance between intangibles and tangibles factors in capacity building**



Thus for PIARC, any work directed towards ICB should acknowledge and take account of the two dimensions of ICB; tangibles and intangibles to achieve success. ICB is not only building competence but involves a proper understanding of the social arrangements and incorporating it to allow it to work well. In figure 2 a fictive, but illustrate example is given on why taking account of the intangibles is important in capacity building.

## Figure 2: An intuitive but fictive example of why the intangibles are important in capacity building

A road project is planned built in a remote area in a developing country X. A donor has been identified to finance the project where one of the goals is to promote capacity building. The donor includes technical upgrading of local staff so that when the donor completes the project, the local staff will be able to maintain the road segment. Further, the machinery required for the purpose will be financed by the donor and the legal framework in country X is in order.

Soon the road is built, local staff upgraded and the maintenance machinery in place. Five years later, the donor comes to evaluate its achievements. The results are devastating. The road segment is almost no longer there; maintenance has not been done, the technical personnel are no longer there and the machines are rusty because their maintenances has not been carried out.

The donor conducts an in-depth study to find the major cause of capacity building failure. The results are even more devastating; the technical personnel have never intended to live in this remote area; furthermore they belong to another culturally different tribe to which they more or less adhere and opportunities elsewhere is more favourable.

This example illustrates what is important in capacity building. Both the tangibles and intangibles should be taken into account for capacity development to function in order to gain success in development. Taking account of the intangibles is paramount for success, given that taking account of the tangibles which are equally important is now in the order of the day.

Thus capacity building at whatever level it is at, needs a clear focus *a priori* on the desired outcome.

To underline what has been illustrated in figure 2 is that ICB at what level it takes place, needs to take account of both the tangibles and intangibles within the institutional context considered – it should always be driven by a clear focus on the desired outcome which should consider the two axes in figure 1.

Given the definitions and illustrations above, there are reasons to believe that ICB within the road sector has in the past had success problems primarily because only one of the axes and not both have been emphasised. This claim is verified by looking back at what in the last three decades has been the focus for capacity building in the road sector.

### 1. The 70s.

The focus was developing the individual through scholarships. Further, external and “on-the-job-training” were provided for people in key positions, and equipments were provided. Serious failures have been witnessed in this approach as institutional capacity building is concerned. Many of those who received scholarship never returned back and those who returned got much better job opportunities quite different from their training giving better payments etc. In addition the equipments provided were never maintained and eventually became more or less useless in the long run. Individual training alone never prospered capacity development.

### 2. The 80s

Focus was on auditing because of the prevalent on embezzlements. The donors were pre-occupied with re-structuring and re-design of the organisations to avoid the major threats embezzlements. Organisational audits and external supports were used to develop clear cut financial supports for institutions. The idea was that money went to what they were intended for. Still, things never went well as far as institutional building in the road sector is concerned as the focus was one-sided; only the

management of accredited funds.

3. The 90s.

An increased understanding of the wider institutional framework emerged and the need to focus on outcomes. The World Bank for instance, introduced the concept of monitoring performance and that capacity building must be an important objective of development aid. The idea has been followed by many donor countries or organisations. Yet, throughout the 90s, ICB was still a secondary objective of many aid programmes with no clear-cut definitions and ways of achieving it.

4. 2000 +

New global factors - such as globalization, the information revolution, the tremendous growth in international markets and the acceleration in the democratisation and decentralisation of national authority - are causing international organisations such as the World Bank, UNDP and almost all other international development organisations to reassess their roles and competencies in offering development aid. Sustainable Human Development - a cross-sectoral strategy for poverty eradication, sustainable livelihoods, environmental regeneration and gender mainstreaming - is now being considered the best way of achieving long term sustainable development. It is now more and more recognised that achieving it requires processes based on partnerships with both government and civil society including the inter-relationships between individuals. These processes are being designed through facilitative and participatory approaches, and should be responsive and accountable to national priorities and objectives. These characteristics are not only the core principles of good governance in society; they also renew the main goals of development cooperation: long-term sustainability and an enabling environment that facilitates human development. One of its cores is ICB. Recent aid programmes are concerned with how to facilitate ICB. Yet the concept of ICB still remains difficult to grasp and that is where we stand to day and that is why the definitions of the two axes defined above are important to pursue it.

The relationship between capacity building and good governance should now be clear. Good governance is characterised by accountability, public participation predictability and transparency. It is about having effective and efficient institutional arrangements for the provision of reliable services. Thus as defined here, ICB promotes good governance either directly or indirectly.

### **3. Strategies for Institutional Capacity Building**

Given the discussions in section 2, we set out some of the ICB strategies that have been used in the past and we discuss their shortcomings in the light of warn the two axes mentioned above.

#### **3.1 Financial assistance and supplying physical resources.**

In this strategy simple lack of resources, either financial or physical assets are seen as the major lack of institutional capacity. This strategy is prevalent among many aid agencies throughout the world. The rationale with this strategy is that the concerned institution lacks adequate supplies or finances to achieve its efficiency. The strategy for the donors is then to

provide more equipment, more funds for operating costs e.g. salary payments, more buildings, trained staff – so as to improve the conditions for capacity development.

This strategy has in the past dominated development aid. It has the advantage that, for donors it is relatively easy to implement and, furthermore does not intrude much into the affairs of participants. In several circumstances, the provision of funds, training and machinery have helped institutions develop and in particular get through critical periods. However, this strategy may not function well. There is the risk that the resources supplied may be appropriated by officials in the institution for their own personal benefits. In other circumstances, the supply of resources may make the institution donor dependent also in the long run. The supply of resources becomes payoffs rather than incentives, and does not lead to a sustained development of the institutions. Returning to the illustration in figure 1, this strategy definitely improves only one of the axes; the tangibles, and therefore will not promote ICB appropriately.

### **3.2 Improving the organizational and technical capabilities of institutions**

This strategy has the aim of improving the personal, technical and organizational capabilities of the institution so that it better performs what is already being attempted. It is thus a variant or a subset of the strategy above with the difference that it is motivated by lack of technical capabilities and proper institutional structure rather than resources. In the road sector in particular, this strategy has become common and it is the one mostly considered as capacity building approach. Activities included are such as: (i) Technical assistance in terms of personnel, (ii) Technical training of local personnel either locally or in form of scholarships abroad, (iii) Improvement of management systems e.g. better financial and management systems and, (iv) improved working conditions.

This strategy has definitely improved technical capabilities of many institutions, at least in the short term. The value of training and skill improvement are undoubtedly important for capacity development and should be encouraged. It also remains true that many developing countries and countries in transition suffer from poorly performing organizations and lack of trained staff and proper management systems.

Again and however, this strategy may be inefficient in promoting institutional development. Many institutions are under constraints far beyond what so far has been termed tangibles and what technical support is not about. Such constraints may include politics, motivation, culture etc., which may prevent an institution and individuals from performing regardless of their technical skill levels. The current situation, after so many years of emphasis on education and training as a means of developing capacity, reveals that skills and training has become less of a constraint in many countries than was the case 15-20 years ago. What should matter now is the utilization and retention of the already available capacities. That can only be achieved if the intangibles discussed above are considered seriously. Again it is the mix of the “two axes” in figure 1 that can lead to optimal capacity development.

### **3.3 Setting strategic goals for an institution**

This strategy is on the “on-march”. Donors are now willing, given that developing countries and countries in transitions have no clear answers to the question of “what are capacity and institution are for”. The problem is that institutions do not have clear directions or cannot define a consistent direction. Take the case of a road traffic directorate. Should the capacity building be traffic safety, increased supply of road, environmental improvement in cities, economic development or all? And further, pressure from the different groups may be

enormous, each wishing to achieve their own goals. Or, there may be no consensus in the political system about the purpose of the institution.

The aim with the strategy is to help induce a policy or a general direction that can guide actions and the development of capacity in the long term. The advantage with this strategy is that it is simple. Ideas developed can be compared to experiences elsewhere. The problem, however, is whether the intangibles really are taken into account in an appropriate otherwise it will most likely result into a failure before long.

### **3.4 Strengthening the larger system, networks or organizational framework**

This strategy aims to help a group of institutions to work together to carry complex tasks e.g. national budgeting, national health plans or even national transport plans. The system lacks the organisation or its sub-units to perform these functions. Or the interrelationship between actors in the sector/system needs reshaping to in to perform their functions. For this strategy to work well, focus must be both on the interrelations between the organisations and individuals and groups of individual. Again as before the two axes explained above are important. Perhaps this strategy is the most complex one for aid organisations to accomplish.

## **4. Past experience – how has capacity building projects in the roads sector worked in the past?**

From the late 80s onwards capacity building has been seen as an integral part of development aid by almost all countries. However, not until recently has the development tried to define it and give it a clear meaning. Thus, it is not surprising that PIARC now wishes to explore its meaning, how it has worked and how it can be improved. In this chapter, we examine how capacity building oriented road projects has worked in previous projects world wide. The following five cases are chosen for the review.

1. Institutional sustainability and capacity development within SIDA financed road safety projects
2. Norwegian assistance to the road sector in Botswana
3. Norwegian assistance to the road sector in Tanzania
4. AfDB assistance to the transport sector in Ghana
5. Road sector management in Lao PDR, Papua New Guinea and Philippines (ADB)

The objectives of the review have been to find out (i) how ICB is perceived, (ii) how ICB is addressed, (iii) to what extent the cases relate to the ICB concept as set out in the position paper and (iv) which experiences have been gained (successes and failures/short-comings)

In the assessment of the projects' performance and results, the World Bank rating system is used. The following factors are considered:

*Outcome* - consists of three factors: (Possible ratings: *high, substantial, modest, and negligible*)

*Relevance* - the project's objectives in relation to country needs and institutional priorities.

*Efficacy* - the extent to which the development objectives have been achieved.

*Efficiency* - the extent to which its objectives have been achieved without using more resources than necessary.

*Sustainability* - the likelihood that the estimated net benefits will be maintained or exceeded over the life of the project. (Possible ratings: *highly likely, likely, unlikely, highly unlikely, not evaluable*)

*Institutional development impact* - the extent to which the project improves the ability of a country to make better use of its resources. (Possible ratings: *high, substantial, modest, negligible*)

## 4.1 Findings of the review

### **How is ICB perceived?**

The term *institutional capacity building* is perceived or understood in different ways. In some cases, it refers to activities aimed at developing structures, organizational mechanisms and processes, and human resources.

In other cases, the terms *capacity building* and *institution building* are used in the sense of training and technology transfer.

### **How is ICB addressed?**

In the road safety projects (case 1), various approaches to ICB have been used. It appears however, that only a few projects have had institutional capacity development as the main objective.

In Botswana (case 2), capacity/institution building has been addressed through the provision of expatriate staff, training, and development of technology, work methods and procedures. As a means of capacity/institution building, institutional cooperation (twinning arrangement) is set up.

In Tanzania (case 3), capacity building is provided for through institutional cooperation (twinning arrangement) involving advisors on short-term assignments.

In Ghana (case 4) and in the South-East Asian countries (case 5), capacity building is limited to consulting services and training on managerial and technical matters.

### **To what extent do the cases relate to the ICB concept as set out in the position paper?**

From the cases under review, it appears that interventions and activities have been geared towards hard capabilities (tangibles). Little attention has been paid to soft capabilities (intangibles) although local conditions have been taken into account in the design and implementation of the various activities.

### **Which experiences have been gained - successes and failures/short-comings?**

#### **Institutional development impact**

The institutional development impact is defined as the extent to which the project improves the ability of a country to make better use of its resources. The table below summarizes this impact in the various projects that have been reviewed.

Case	Road safety projects	Botswana	Tanzania	Ghana	Laos	Philippines	Papua New Guinea
Institutional development impact	Modest	Substantial/modest	Substantial	Modest	Substantial	Modest	Modest

#### Experiences in the field of road safety (case 1)

- Sweden has supported road safety projects in developing countries with a focus on capacity development of key institutions.
- The projects have not had an optimal impact which is partly due to the lack of an overall strategy for institutional capacity development. The lack of an overall strategy has resulted in spreading of limited funds thinly into too many components and activities and in allocation of resources to the design of activities rather than to the implementation stage.
- Interventions need to be adapted to the recipient's level of development and absorption capacity.
- Expertise within institutional capacity building and reform processes is needed both at the sector level and the macro-level.
- For results to be sustained, the following factors are critical: political support; institutional mechanisms to secure and allocate resources; functioning bodies for communication between and coordination of stakeholder contribution; and individuals with the necessary knowledge and experiences.

#### Experiences in Sub-Saharan African countries (case 2, 3 and 4)

- **Botswana** and Norway have had a development cooperation program in the road sector since the early 70s.
- The factors which are identified as being important to the success of this cooperation program are: demand-driven development assistance; careful start of the development assistance adapted to the local situation; development of appropriate technology and work methods; focus on technology transfer and human resource development; and the long-term cooperation (30 years).
- The low salary levels within the public sector represent, however, a major problem. There are problems recruiting and retaining local engineers. The force account regime has been replaced by contract works, and a concern of the Botswana Roads Department today is how to maintain the in-house technical know-how of road works and become a professional client.

- The World Bank initiated road sector institutional reforms in some Sub-Saharan African countries around 1990, among others in **Tanzania**. The reform program components are:
  - *Management* – establishment of a autonomous road agency
  - *Financing* – establishment of a road fund to support operation and maintenance of roads which is administered by a road fund board
  - *Responsibility* – a consistent organizational structure for managing the road networks where the Ministry is the client, the road fund board the purchaser and the road agency the service deliverer
  - *Ownership* – user involvement in the management of the road fund
- Norwegian assistance to the reform process in Tanzania has been useful in building up the capacity of the Ministry of Works and of the new road agency TanRoads. The Ministry of Works needs to redefine and implement its new role as a policy maker, regulator and strategic planner. TanRoads is now able to recruit staff on a competitive basis, to secure and manage road funding, and to monitor use of funds. The process of reform has, however, taken much longer than foreseen.
- The experiences in Tanzania with this reform program show that the new institutional setting has created a need for professional staff with financial and managerial skills to help develop the new institutions. The reform process has to some extent underestimated the need for human resources development to go along with the new institutional setting.
- In **Ghana**, previous efforts to restructure the Ministry in different forms did not produce any significant improvement in institutional arrangements. The African Development Bank's financing included some capacity building components of a short-term nature to facilitate project implementation. The impact of such assistance was limited in scope and not sustained and needs to be strengthened. However, Bank financed studies and projects have assisted in transfer of skills from consultants and contractors engaged during implementation.
- The Government has made progress in recent years to put appropriate structure and funding for maintenance of the road network. In order to sustain the road infrastructure, the road fund was restructured in 1997 to have its own Board and managing director. The fund is dedicated to the preservation of Ghana's trunk, feeder and urban road networks.

#### **Experiences in South-East Asian countries (case 5)**

- The support by the Asian Development Bank to the three countries **Lao PDR, Papua New Guinea** and **Philippines** have had the common purpose to strengthen the road sector management in the respective countries.
- A lesson learned is that a long-term involvement with the stakeholders, with support and follow-up over a period of five years or more is required to maintain momentum and stakeholders' interest.
- The project interventions have been hampered by bureaucratic structures, corruption and misappropriations. Other factors having negatively affected the project are lack of

credit facilities for equipment and materials, inadequate funding for the road sector, and low salaries.

## 5. Conclusions

This review has looked into some road sector projects aiming at capacity building and institutional reforms. It shows that the term capacity building is perceived in different ways, and in most cases, it addresses technical competence and organizational issues while the social and cultural setting is often ignored or underestimated.

Some factors leading to success are found to be:

- Long-term involvement
- Demand-driven assistance
- Interventions adapted to the level of development and absorption capacity of the institutions involved
- Focus on human resources development

Some factors leading to short-comings/failures are found to be:

- Lack of understanding/competence of institutional reform processes and capacity building. The need for human resources development to help develop new institutional arrangements are often underestimated and also the importance of the social and cultural context.
- The public sector salary levels are often low and not competitive with salary levels of the private sector. Apart from facing problems with recruiting and retaining qualified staff, low salary levels make Government organizations prone to corruption and misappropriations.

The findings indicate that institutional reform processes and capacity building need to comprise technical competence and organizational frameworks (hard factors) and an understanding of the social and cultural arrangements (soft factors). This requires expertise in reform processes both at the sector-level and the macro-level.

The time required for institutional reform processes to yield results should not be underestimated. Reform processes are often hampered by complex bureaucratic structures and decision-making processes.

The sustainability of institutional reform processes strongly depends upon political commitment, stakeholders' ownership of the objectives and processes, and mechanisms to secure and allocate human and financial resources.

## References

World Bank, Operations Evaluation Department (OED)  
<http://www.worldbank.org/oed/about.html>

The Norwegian Agency for Development Cooperation (NORAD)  
[www.norad.no/publications](http://www.norad.no/publications)

The Swedish International Development Cooperation Agency (SIDA)  
<http://www.sida.se/Sida/jsp/polopoly.jsp?d=160>

UN department of Economic and Social Affairs, Division for Sustainable Development  
[http://www.un.org/esa/sustdev/about\\_us/aboutus.htm](http://www.un.org/esa/sustdev/about_us/aboutus.htm)

United Nations Environment Programme (UNEP)  
<http://www.unep.ch/etu/etp/index.htm>

Norwegian Institute of Transport Economics (TØI)  
<http://www.toi.no>

Canadian International Development Agency (CIDA)  
<http://www.acdi-cida.gc.ca/whatwedo.htm>

Europe's Forum for International Cooperation (EUROFORIC)  
<http://www.euforic.org/>

United Nations Development Programme (UNDP)  
<http://magnet.undp.org>