The European Union's Programme for the Balkan Region
Albania, Bosnia & Herzegovina, Croatia, The Former Yugoslav Republic of Macedonia, Serbia, Montenegro and UNMIK/Kosovo

South-East Europe Transport Observatory

(SEETO)

Technical Note 3

Multi-annual Plan for the Development of the Core Regional Transport Network

Project Criteria and Prioritisation

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Submitted by the SEETO Joint Venture
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1 Introduction

1.1 Purpose of the Paper

The purpose of this paper is to present an approach to the SC and stakeholders for the application of project criteria that will be used for the prioritisation of projects that will be included in the proposed Multi- Annual Plan for the Development of the South East Europe Regional Core Transport Network (the Plan). Participation of the SC and stakeholders in the development of the process is essential to obtain the desired consensus necessary for the Plan to be adopted, financed and implemented.

Another reason for the paper is to build upon project preparation skills developing in the region and to raise the quality of projects that have been presented to SEETO, particularly with respect to responding to the project criteria selected.

The paper will, once discussed and tested in practice, be included into a SEETO Planning Manual that will be applied to the preparation of successive multi-annual plans.

The paper recognises that the planning process needs to reflect the following:

a) that the first Plan for 2006 to 2010 according to the MoU should contain the highest priority projects that solve short term problems such as removal of bottlenecks as well as accompanying legal, regulatory and management reforms;
b) that subsequent plans correspond to the medium term need to upgrade infrastructure and in the longer term develop the regional economy through the construction of entirely new infrastructure.

1.2 Rationale for the project procedure

The key issue in preparing a regional plan, especially given the recent history of conflict and federalism, is how to reconcile national and regional interests? Other questions are how to compare projects of different modes and how to ensure that more social projects in remoter areas compete objectively and on even terms with projects on the major transport corridors, without which there cannot be a holistic and network based approach.

Overall, it must be clear that the ultimate responsibility for the final composition of the Plan is that of the SC who, through discussion of the relative merits of projects, should agree a final priority list.

Finally, the process being developed in the preparation of the 2006 to 2010 Plan for the SEE Region will provide useful experience for the creation of agreed procedures at SEETO for the preparation of future multi-annual plans for the development of the regional core transport network.

1.3 Project submissions

The procedure for the prioritisation of projects being developed in this paper is to be applied to approximately 145 projects submitted to SEETO by signatories to the MoU between July and October 2005 for inclusion in the first Multi Annual Plan. It is incumbent on project proponents to make the best case for the project, to be clear about the objectives for the project and to ensure that the most relevant criteria are given due weight in the studies and analysis. It is intended that this paper will assist in making the best case for projects.

1.4 National Interest

It is important to underline that the starting point for all projects and measures submitted to SEETO is that they represent national interests. Ensuring compliance of projects to criteria that satisfy the national interest is the duty of national planning authorities. Evaluation of national interest should not be a function of SEETO. This paper sets out the method for the prioritisation of projects at the regional level where the criteria may be different to those used at the national level and the relative importance will almost certainly be different.

1.5 Selection of criteria

The background of the criteria selected emanates from the REBIS study and various policy documents of the EC, stability pact and international financing institutions (IFIs). The general listing was included in a briefing presented to SC in Tirana in April 2005 and subsequently elaborated in SEETO Technical Note No. 1. Since then further discussion have resulted in the definition of five criteria groups associated with regional impact, economic impact, financial sustainability, environmental and social impact, and technical standards. The listing by criteria groups is as shown below:

<u>Regional Interest</u>

1. Coherence with planned projects in other countries
2. Proportion of international traffic
3. Inter-operability

<u>Economic and Development Impact</u>

4. Economic feasibility
5. Development impact
6. Accessibility

<u>Financial Sustainability</u>

7. Investment cost
8. Financial sustainability
9. Financing, including level of commitment
10. Possibility of private financing

Environmental and Social Impact

11. Environmental impact
12. Promoting sustainable mobility
13. Social impact
14. Inter-modality

Technical Standards

15. Technical feasibility
16. Defined technical standards

The order in which they are presented above is not indicative of the relative composition of individual criteria. However, the regional interest of a project should be considered of prime importance.

1.6 Progress in selecting criteria for prioritisation

It is vital for the adoption of the Multi Annual Plan that there is consensus on the procedure for project prioritisation. The development of the approach to prioritisation by the SC has been gradual and positive. Lessons are being learnt; part of the reason for failure of the Planning Document submitted to the SC in October 2005 was the lack of prioritisation of projects. The SC of November (Skopje) undertook to consider the criteria, their relative importance and grouping. Responses from the SC have been taken into account:

The comments can be summarised as being, concern that projects not on corridors would not be considered favourably; projects should aim at developing the network not only rehabilitating it; development and accessibility are very important criteria; technical criteria are to be included; criteria should be grouped into to a number of categories that can be used to firstly screen the projects; the number and composition of categories has ranged from 3 to 5 and the number of criteria should be less than 16. In addition the relative importance of criteria was also indicated by some of the participants with developmental, accessibility and economic criteria figuring prominently. Some SC members have yet to respond.

The way forward taken in this document is for SEETO to make proposals for consideration by the SC that takes into account the views that have been presented. The paper can then be discussed and a final methodology agreed.

2 Draft Proposals

2.1 Main Steps

Taking into account the comments received and SEETO experience, a 3 step procedure is proposed:

1) Information sufficiency
2) Strategic relevance
3) Project prioritisation

1) Information sufficiency
It is clear that sufficient information is required in order for a project to be considered for inclusion in the Multi-Annual Plan. It is understood that not all project data would be available, or that capacity problems may constrain the collection of data, but a minimum of information is needed to make an initial screening concerning the strategic relevance of the project. If project submissions fail this step, SEETO will return the submission to the proponent indicating where the gap is. This subject will not be considered further in this paper.

2) Strategic relevance
This step provides the first screening of projects. Whilst all projects are on the core network, some of them may be considered more strategically relevant than others; it is proposed to provide an initial screening of projects to test their relative strategic contribution to the development of the core network for that particular plan. In this regard it will be useful for the SC to agree a basic strategy or theme for the first and successive Plans. All projects will probably be worth doing at some time in the future, it is a question of timing and matching projects to available funding. Therefore, it may be that a particular project may be worth doing in the longer term but not in the time period covered by the Plan.

3) Project Prioritisation
Projects displaying acceptable strategic relevance may then be considered for prioritisation in the Plan. The process of multi-criteria analysis may be used enabling the quantitative and qualitative attributes to be compared in projects for different modes of transport. A priority listing of projects will also have to display a certain internal rationale and be capable of meaningful programming for inclusion in the action plan.

2.2 Strategic Relevance

The MoU makes it clear that the development of the core network will require the inclusion of a mixture of investment projects and measures that will enable it to operate with greater efficiency. It is also clear, that projects are to be regional, economically efficient, financially sustainable, socially desirable, environmentally acceptable and contributing to the development of the region. Projects may be considered as being strategically relevant provided that they satisfy the following key requirements.

1. Regional interest
2. Economic and development impact
3. Financial sustainability
4. Environmental and social impact
5. Technical Standards

1. Regional Interest

Regional interest is the pre-requisite for all projects. Projects on the core network, identified by, and included in the REBIS short-term list, are of *de facto* regional interest. It is also understood that this is a transport network that is already considered in the MoU as being *core* and essential for regional development. Never-the less, some projects are of more vital interest at the time of the Plan than others and a balance may be needed that, for example, '*develops the trunk whilst maintaining the branches'.* The project evaluation criteria that may be included into the category of regional interest are listed as follows:

1. Regional interest

1 (8). Coherence with planned projects (in other countries)

+ Importance attached to the projects/measures by other countries

2 (11). Proportion of International traffic

3 (13). Interoperability

+ cross border elements

(Note that the numbers in brackets relate to positioning in the listing in technical report no. 1

2. Economic and Development Impact

From the terms of reference to establish SEETO the wider objective is …

To accelerate the economic development of the countries of the western Balkans and to promote closer economic and social integration among them as well as with countries in neighbouring regions and the EU. To achieve this, a priority is to provide the region with an efficient transport network.

This relates directly to the contribution of projects to economic development and integration and imputes economic, social and efficiency criteria as being significant. It may apply especially to upgrading or new construction projects. The criteria that may be included into this group are listed as follows:

2. Economic and development impact

4 (4). Economic Feasibility

5 (9). Development Impact

6 (15). Accessibility

(Note that the numbers in brackets relate to positioning in the listing in technical report no. 1)

3. Project Financing

It is self-evident that without financing, there can be no project. The argument is circular though: most projects have not got financing - inclusion in the Plan would catalyse financing - for a project to be included in the Plan, evidence of financing is required. That projects have obtained domestic support is necessary and being in an IFI pipeline for future consideration is also a good indicator, but assessment of the potential for projects to be financed relates to satisfying other criteria and the inclu-

sion of soft measures that ensure that the project is sustainable. The criteria that may be included into this group are listed as follows:

3. Financial sustainability

7 (6). Cost (one-off investment cost)

8 (2). Financial sustainability

9 (7). Financing (including level of commitment)

10 (10). Possibility of private financing

(Note that the numbers in brackets relate to positioning in the listing in technical report no. 1)

4. Environmental and Social Impact

A penultimate test of a project's compliance to strategic considerations, is that it relates to user requirements (and those of the non-user regarding environment) in terms of passenger and freight transport operations. However, at least for the 2006 to 2010 plan it is to be noted that 60% of the regional transport network requires backlog maintenance to restore levels of service to pre-defined levels; rehabilitation projects will generally have a neutral affect on these criteria.

4. Environmental and social impact

11 (5). Environmental Impact

12 (12). Promoting sustainable mobility

13 (16). Social impact

14 (14). Inter-modality

(Note that the numbers in brackets relate to positioning in the listing in technical report no. 1)

5. Technical Standards

Various reasons for and against the inclusion of technical standards have been advanced. For inclusion, is that EC UNECE technical standards should be apparent in the project – although this may overlap with interoperability criterion – another is that standards used may be inappropriate for the traffic – usually too high or may be technologically not sustainable; countering the inclusion of technical criterion, is this that a project should not become a higher priority because of its technical quality.
However, it is policy of the EU that its transport infrastructure should confirm to common technical standards so that a final plank in the strategy to develop the core network should ensure that its components are technically compliant. The criteria that may be included into this group are listed as follows:

5. Technical aspects

15 (1). Technical feasibility

16 (3). Defined Technical standards)

(Note that the numbers in brackets relate to positioning in the listing in technical report no. 1)

3 Description of Criteria

3.1 Introduction

A description of criteria is provided in the following sub-sections to obtain a common understanding of the criteria and the pertinence of providing concomitant details and key words and phrases in project proposals. The criteria are described in the order of their strategic grouping. The general nature of each of the 16 criteria is described, explanation of the requirements for measurement of the criteria is given and a general comment in made on one or more of the issues related to the criteria. The evaluation process is elaborated in subsequent sections.

1. Regional interest

1 Coherence with planned projects (in other countries)

General Description of the Criteria

Investment in infrastructure as well as soft measures should be effected as much as possible in a coordinated way along trans-national routes to avoid discontinuity – for example: a four lane motorway connecting with a two lane highway. Levels of service should generally be consistent along corridors and routes in the core network.

Measurement

(Cross Border) projects jointly proposed or endorsed by two or more countries:
Level of interest in the projects expressed by other countries in the region:
Commonality of technical standards;

Comment

Proponents will be able to observe project details of neighbouring countries in the SEETO project database to help build in coherence.
Coherence with planned projects in other countries outside the CARDS domains can be coordinated through SEETO with the EC and the Secretariats of the Pan Trans European Corridors (V, VII, VIII and X). Within CARDS / SEE, the SC will also be able to discuss matters of coherence between colleagues when formulating the work plan.

2. Proportion of International traffic

General Description of the Criteria

The regional transport network is designated to improve the movement of persons and goods within the region (intra-regional) and between regions (inter-regional). Reference to the proportion of intra and inter regional traffic to domestic / national traffic is essential information in the project proposal.

Measurement

Simple proportion of non-national transport demand / traffic affected by the project: whether import, export or transit of goods, or trips that have an origin or destination (OD) or both beyond the limits of the project, such movements are highly relevant to the elaboration of projects for the core regional transport network. In the absence of OD data; projects assumed to have a significant portion of international traffic will be on corridors, border crossings and adjacent links, waterways, airports and ports. Projects that may have lower proportion of intra and inter regional traffic will be close to urban areas and sections of the core network away from borders – unless evidence is provided to the contrary.

Comment
Traffic information presented in project submissions to SEETO generally omits to include any information on traffic characteristics. Traffic data will become available in the SEETO information system.

3. Inter-operability

General Description of the Criteria
The former Yugoslavia has the benefit of a fully interoperable transport system – that is to say both technically and legally. But SEE is not interoperable with some other parts of the EU. More relevant, is avoidance of any possible disparity in the future and ensuring mutually acceptable regulations, documentation and common formats in the exchange of information between the new independent countries of SEE.

Measurement
Not likely to be an issue when evaluating investment projects for the plan. Technical, operating, management standards will be looked at. Possibly cross border projects that may catalyse soft measures that harmonise procedures and documentation would serve to strengthen an argument for investment.

Comment
SEETO expects to see references and proposals that exploit of the potential of the SEE inter-operable transport system included in the project.

3.2 Economic and Development Impact

4. Economic Feasibility

General Description of the Criteria
Being the classical means for projects to be evaluated, economic feasibility remains the pre-eminent criteria that describes the effects on society of the change in the use of resources, that the project or intervention will generate. Economic evaluation is usually based on an analysis of costs and benefits, with and without the project. The predominant cost is the cost of construction, followed by maintenance and operation costs. The benefits are savings in travel time, vehicle operating costs and of reducing accidents are also important. For freight, benefits also include savings in inventory costs or faster access to markets. The problem with using economic criteria is that

they may not help to advance project investment in an economically underdeveloped environment. Besides the costs and benefits to traffic, the economics of the project may also stimulate a positive response in other sectors, such as agriculture and tourism. If this is expected to be the case, then a consumer surplus analysis may provide an alternative argument that would improve the economic performance of the project.

Measurement
The Economic Internal Rate of Return (EIRR) is the normal indicator of economic performance. The IFI's use a standard model for deriving EIRR in roads investment but not for rail and other modes of transport. The Road Model (HDM IV) is generally used to compare options for road but no standard models exist for rail and other modes. This may mean that different analytical techniques are used by participants so comparing like with like may be more difficult at the regional level. Knowledge of the base and predicted transport demand and traffic volumes is essential and a ratio of annual average traffic / construction costs per km - may be used as proxy for the EIRR in the absence of a feasibility study.

Comment
Time-savings, being a significant part of the benefits of projects, are based on the average value of productive time – normally related to the cost of labour. In SEE, where the value of time maybe relatively low, adjustment of the value of time using purchasing power parity (ppp) is acceptable and accords with the implementation of regional development policy. Without ppp adjustment, the EIRR could be understated. But reasonable traffic flows are still needed, and for many parts of the infrastructure of SEE traffic volumes are currently low. The per-capita ratio of good infrastructure and utilisation of transport infrastructure in SEE is also relatively low compared to the EU. Based on experience in EU accession countries, traffic growth can be much higher than conventional macro-economic indicators suggest – reflecting that demand may have been suppressed in some way, possibly due to sub-optimal infrastructure, poor accessibility, politics and depth of the parallel economy. Car ownership is a good indicator of demand. Reference to expected growth is essential in the project proposal that adds credibility to the projected EIRR[1].
Within a transport corridor it is common to observe that the mode split is contested between rail and road - for example it is not unusual for both rail and road projects to claim 80% of the demand for unitised freight in the same corridor. Whilst it is understandable that proponents will want to make the best case, and for competition to be created, investment performance depends on accurate forecasts. SEETO will be looking for evidence of a reasonable accuracy in mode split analysis in the Corridors.

5. Development Impact

General Description of the Criteria
This criterion relates to the impact of the investment in transport on the development of other sectors. A positive impact will be that the project catalyses investment in

[1] SEETO will be publishing traffic growth estimates in 2006 that can be used for reference in the preparation of projects.

housing, tourism, commerce, industry mining and so on. A negative impact may be lack of planning controls undermine development. New or improved transport links will catalyse development provided that are considered pro-actively to secure the benefits that are envisaged.

Measurement

The first test is whether the project is included in a spatial – land use plan - that would enable the project's developmental objectives to be realised; another indicator would be if non-transport sector investment is in some way conditional on the investment in transport, as may be the case in industrial and mining sub-sectors. Reasoned argument in the pre-feasibility study without a spatial plan followed by a reference to the potential for development can constitute progressively lower evaluation of the criteria.

Obviously no reference at all to development impact will score the lowest. Generally upgrading or new construction would be considered as generating development potential.

Comment

Project proponents do not as a rule elaborate the developmental aspects of their projects in feasibility studies, even though development may be the single most important objective. Feasibility studies may focus on technical matters such as topography, alignment, cross-section etc when more consideration and analysis of land use and development at an early stage may not only help to justify the project, but may have a greater impact on alignment than topography. For example in PPP projects, the private sector may have different objectives to those of the government who are promoting the project; it is conceivable that a less transport related and more developmentally connected solution may arise; the private party caring more about generating development opportunities, transport demand and consequently revenue than time savings for existing users. In fact the longer the route, the more toll revenue is generated.

6. Accessibility

General Description of the Criteria

The proportion of the population laying within a reasonable distance to a primary route in the EU is far greater than in SEE. Moreover, connectivity between countries is can be improved considerably, this includes both the quality of infrastructure and the services upon it. Improving accessibility may be one of the most significant of all criteria for the development of SEE regional transport. Improvements in accessibility in the market place between the production and consumption will lead to greater competition and lower costs.

Measurement

Improvement in accessibility and saving time are synonymous. Chronographic analysis illustrating the connectivity between centres before and after the project, would be useful in revealing the effects of accessibility. The area defined by, for example, a 1-

hour chronographic contour around a principal city, or commercial centre, would indicate, in a standard way, the relative level of accessibility. A more simple way of demonstrating improved accessibility is reduction of travel time in the project section.

Comment
Analysis of housing markets where accessibility to cities is improved through construction of expressways of rapid transit systems, clearly demonstrates the effect that prices relate to the time taken to travel to work. Comparison between property prices in centres connected to the cities by low speed roads or stopping railway services with those that are connected by expressways and non-stop services illustrate the economics of improved accessibility. Connectivity between sea and airport and its hinterland is well understood. But accessibility requires specific targeting and management. If a road improvement project is designed to improve accessibility of agricultural enterprises to urban markets or an airport to the city for example, but is also used opportunistically for ad-hoc residential and commercial development along the intervening road frontage, then the mobility of the target group will be compromised by the uncontrolled access of others and the project objectives will be undermined. Railways have the distinct benefit over roads of being able to control access to its network. It would be peculiar indeed if high-speed services were interrupted at stations by local commuter services. Levels of service for core network roads and railways have yet to be agreed. Such an agreement may aim to control direct access to localised development to preserve the level of service for which the investment was intended.

3.3 Financial sustainability

7. Costs (One-off investment costs)

General Description of the Criteria
The one-off capital investment required to implement a project is subject to affordability limits – imposed by government and often the IFIs. The budget that available to finance investment in Eastern European Countries may be relatively restricted. Loans have to be supported by guarantees that relate to the size and performance of the economy of the borrower. Financing of large projects imply more risk for the lender. In short, the financial requirement for project investment is of relevance in prioritising projects for the Plan.

Measurement
Small to medium sized projects would be evaluated more favourably than large projects as they may be more affordable and more likely to be financed within the planning period. A scale of project costs and corresponding score will be complied. Alternatively a ratio linking to GDP could be used to reflect national differences.

Comment
Affordability is a complex issue that relates not only to the size of the project but the way it is financed and the repayment requirements. The variations for financing may include, grant, loans, private investment, bonds, equity and so on. Repayment maybe after a grace period spread over 15 to 20 years. Spending ceilings of x% of GDP are

to some extent too simplistic, none-the-less, the size of the public sector budget is of relevance.

8. Financial sustainability

General Description of the Criteria

That the given technical solution is financially sustainable is a pre-requisite to investment; there also may not be direct revenue – at least for roads. The consequence is that neglect of maintenance is a world-wide problem. There is evidence in SEE that maintenance budgets are redeployed on construction or transferred by government for use in other sectors, with the result that infrastructure quality deteriorates. Therefore, financial viability is important to avoid excessive application of funds, especially where the source of funding is limited. For new construction using PPP as a means to financing capital and recurrent expenditures a reasonable explanation in the project proposal should be presented.

Measurement

An acceptable Financial Internal Rate of Return (FIRR) provides an indication of the potential financial return on investment, but the sustainability of a project depends on guaranteed flows of revenue for operation and maintenance.

General Comment

This criterion relates closely to reform in the sector. It is useful for the project promoter to indicate the regime for financing maintenance through semi-autonomous agencies such as Road Directorates, Track Authorities, Port Administrations or Airports. In addition it is useful to declare if the contracting is outsourced, through competitive tender and provide assurances that the maintenance funding is protected from government redeployment.

If the project is to be PPP, directly or shadow tolled, then the project promoter will need to describe the project financing regime and provide evidence accordingly of proposed charges. Generally toll income is rarely sufficient for all capital, operating and maintenance costs. It is generally true that all modes of transport need to pay very close attention to financial sustainability, except for road - because the commercial relationship between user and supplier is more direct. For roads, the means of inducing more commercial awareness is being gradually established. That being the case, road projects will need to show more carefully, that the project is financially sustainable.

9. Financing including the level of commitment

General Description of the Criteria

It will be expedient for the project proponent to show the financing status of the project and indicate if it is included in the national budget and whether external financing is being secured. If PPP is relevant, it will be necessary to show whether the conditions for PPP exist, documentation is prepared and the level of interest shown by would-be private sector partners. Of relevance also is the state of preparation of the project in general.

Measurement
The first condition to be met is whether the project is approved by government and included it its spending plans, thereafter projects can be assessed depending on the progress made in securing financing.

Comment
To some extent there maybe a chicken and egg situation where projects maybe downgraded on the priority listing because of lack of financing and because it is marked down it may make it more difficult to obtain investment. The length of time that a project has been in a certain state of preparation is a useful indicator of the level of interest shown by investors.

10. Possibility of private financing

General Description of the Criteria
Encouraging private sector involvement in the provision and management of transport infrastructure has become conventional wisdom with governments around the world. The extent to which the project is able to leverage private financing in construction or maintenance contracts is of relevance to the IFIs - whose mandate is to encourage commercialisation of the transport sector. There are many models of PPP covering new construction, upgrading, rehabilitation and maintenance of the transport infrastructure. The project proponent would be wise to explore all possibilities of project finance given the increasing constraint on public funding.

Measurement
The potential for private investment in the project will be evaluated based on the level of commitment by the private party.

Comment
PPP is still experimental; there have been few cases of BOOT etc coming to the end of a concession period and being returned to the government. Having appropriate contract law, regulatory and enforcement regimes are essential to safeguard the public interest. Another observation is that generally the enforcement of traffic regulations may be less intense on private than public roads so certain operational objectives may be compromised and tolling limits may be such as to deflect travel by poorer users to existing roads thus also compromising accessibility and tolling bypasses may be counter to improving mobility.

3.4 Environmental and social impact

11. Environmental Impact

General Description of the Criteria
Environmental Impact Appraisal EIA is needed by all IFIs for all projects. The EIA considers the impact of the project on the immediate physical environment, the effects on transport users and the effects on non-users such as local residents. Project proposals should make clear that negative impacts would be ameliorated. However, the impact of most rehabilitation projects on the environment is generally considered

to be neutral and a reduced EIA maybe acceptable to IFIs. With respect to upgrading or new projects, the environmental impact of the project is likely to be of more significance. The balance between benefits to users and dis-benefits to non-users is usually the main issue.

Measurement
Firstly it would be necessary to show that the EIA has been carried out (or a lesser form), evaluation of projects would then be from the top down – alleviation of bottlenecks, relief of congestion, bypassing communities, improving existing infrastructure, upgrading and finally construction on new alignments. Many projects are backlog maintenance / rehabilitation whose environmental impact will be neutral.

Comment
It is unlikely that environmental impact of investment in infrastructure will constrain the development of the core transport in SEE. However, it is important that projects respect environmental standards and mitigate impacts of noise, visual appearance, pollution, community severance and so on.

12. Promoting sustainable mobility

General Description of the Criteria
Optimum utilisation of each transport mode will, in the long term, provide the most sustainable solution. Politically advantaging one mode over another or subsidy, real or hidden, distorts patterns of demand and the allocation of resources. Generally, this criterion concerns soft measures needed in combination with investment to ensure that the desired levels of service are sustainable. The criteria relates to the sustainability of the project in terms of policy, financing, planning, management and maintenance. Indicators of poor mobility are often where bottlenecks and congestion occur. This is particularly true for rail and road. Soft projects that attend to these will be highly evaluated.

Measure
Evaluation will take cognisance of concomitant regulations for efficient enforcement of traffic and border crossing regulations, planning and traffic management – provided they are elaborated and enumerated in the project proposal. For example; a border-crossing project that is linked to green channels and risk analysis would score well; a road project that limits direct access from properties would also score well, a capital dredging project should be linked to a recurrent dredging programme; a railway project can be linked also to through cross border operations. Each of the measures described add value to the investment project to ensure that desired level of mobility is obtained and sustained.

Comment
Reduced mobility can be due to increased accessibility; as the opportunity to travel increases, congestion is generated. The imposition of political systems on the transport network has given rise to other impediments to mobility, such as border crossings. Over-enforcement, sometimes due to security concerns, also constrains the flow of people and goods. Reduced mobility may be localised too in the case of pro-

viding for those whose mobility is impaired by physical handicap. The mobility, of non-users, may conflict with users, due to insufficient safe crossing points. Poor spatial and development planning has been alluded to. Transport infrastructure requires traffic management measures to provide for sustainable mobility.

13. Social impact

General Description of the Criteria
Promoting social integration is a part of achieving peace and stability and an important component of regional policy. Transport development – especially core network routes and feeder links that provide better links between countries – have a vital role to play. Lack of contact between communities may explain, to some extent, the propensity for conflict between them. It is natural that in mountainous terrain communities tend to be fragmented and dislocated.

Measurement
Using the chronographic technique to define the zone of influence of a project, the size and ethnic mix of the population directly affected will provide a good indicator for evaluation. A sort hand measurement is to count the number of communities positively affected.

Comment
More isolated societies are also generally poorer and less able to afford investment in infrastructure. Being able to overcome the problem of topography in the poorest sub-regions to promote social objectives is a challenge for project promoters and sponsors. But projects intended to improve access and social integration may also lead to urbanisation and concentration of activities causing local depopulation, disinvestment and impoverishment. Objective feasibility studies need to include the negative consequences of projects as well as the positive ones. This applies to the evaluation of all criteria.

14. Inter-modality

General Description of the Criteria
Transfer of persons and goods between modes of transport to obtain the maximum advantage may be known as inter-modality. Competition has generally been a force against inter-modality in the past. Moreover, vertical management of the sector by each mode has exacerbated the situation.

Extract from the MoU, section 2, Network Definition
It shall be considered as referring not only to the road, rail and inland waterway alignments and nominated air and seaports indicated, but also to any interconnection or transshipment facilities, in particular combined transport infrastructure. It shall also include ancillary installations such as signaling, installations necessary for traffic management or toll charges, access links, border crossing stations, service stations, and freight and passenger terminals on the routes of the Network, as defined above.

The EU encourages an integrated approach in general to the management of the sector as whole and specifically to the development of infrastructure in the transport corridors. Refer to the extract from the MoU in the text box abovew:

The criteria applies both to passengers and freight and will include transhipment, interchanges, connections to airports and the port transport hinterland for example.

Measurement
The opportunity for inter-modal exchange may be measured by the creation of interchanges – the number and frequency of which will be used in evaluation.

Comment
Inter-modality relies on there being effective and frequent opportunities for interchange at nodes in the transport network, appropriate technical solutions for bimodal transfer and transport and multi-modal regulation and pricing of services. The development of such integrated systems is far from complete in the EU, but is almost non-existent in SEE. Projects that promote inter-modality would be very much welcomed by SEETO for inclusion in the Plan.

3.5 Technical aspects

15. Technical feasibility

General Description of the Criteria
Technical feasibility requires that the proposed solution is appropriate to achieve the results expected, such as maximum load, capacity, safety and speed. It will be necessary for the project proponent to provide reasons for a particular technical solution and state the period over which the solution will be valid.

Measurement of Criteria
The appropriateness of the technical solution will be evaluated against the project rationale. Note will also be taken of the physical project life.

General Comment
For much of the infrastructure in the region, rehabilitation with selective upgrading to reduce black spots, providing safe overtaking, segregated turning, climbing lanes and some illumination and signing is expected to provide a medium term solution for the traffic expected. However, where there is rationale to provide for longer-term development and sustained growth in transport demand, upgrading or new construction maybe justifiable although it may be necessary to compromise technically on alignment in mountainous areas and where traffic flows may not be significant.
A rehabilitation project, that may restore infrastructure to its original specifications, may not provide an optimal solution for the future and have a relatively short operating life. A rehabilitation project may have a life of only 10 years or less after which further investment is needed. The life of the solution is also highly relevant to the project economics - ignoring the near term investment in the economic analysis will overstate the project EIRR.

Where improvement of the original design is required, that is to say upgrading, there may be a tendency to over-specify, that is say provide higher standards than is needed within the projected planning period.
A further issue that affects the technical quality of road projects concerns the lack of planning controls on roadside development. Easy access undermines the operation, safety and status of roads – putting it simply core-network roads are not intended to provide easy access to residences and local businesses. The technical solution may need to demonstrate that planning controls exist and will be enforced.

16. Defined Technical standards

General Description of the Criteria
The technical standards such as those of the EU and UNECE provide a basis for up-grading and new projects. For reasons of sustainable mobility, design standards need to be applied with discretion; where the economics of the project cannot justify the standard, especially in mountainous terrain with relatively low traffic, standards may be lower. For rehabilitation projects, prevailing standards normally apply. Technical standards also apply to general operational specifications and levels of service.

Measurement
The extent to which there is compliance with a stated technical standard or there is a well-argued case for not applying the standard.

General Comment
Standards are driven by levels of service and in turn by demand. Levels of service for the core transport network should be driven by regional demand and interregional demand. It is relevant to point out for this criterion that higher speed is a commercial or economic decision – not a technical one. 160 kph for railway passenger services for example can only justifiable if proven financially feasible – it should not be applied automatically. Higher speeds add exponentially to capital and recurrent costs. For example, a stated preference analysis for road tolling should not be limited to determine the general propensity to pay tolls of a certain level, but to observe the responses of the market to various combinations of tolls, speed and distance. In this way, designers should be confident that users should be prepared to pay more for an extra 20 kph or reductions in VOC such as for shorter distance or savings in journey time. Such knowledge may affect design and alignment and reduce the cost of structures in mountainous terrain. Invariably, transport users requirements are unresearched in the transport sector. Market characteristics and levels of service are of great relevance; travel distances may be relatively short, junctions may need to be frequent and the traffic may predominantly local. Longer distance users may be predominantly freight; for commercial users reliability, paying more for safety and security may provide better value than higher speeds.

4 Project Prioritisation

4.1 Introduction

While there is general agreement on the need for prioritisation, there are difficulties in any procedure that may interfere with national plans and programmes and that may, in consequence, affect *a priori* regional cooperation. With that in mind SEETO sees a progressive introduction of prioritisation, concentrating in the first Plan for 2006 to 2010 on projects that are at a relatively early stage in the project cycle. The technique proposed for prioritisation is Multi-Criteria Analysis.

4.2 Multi Criteria Analysis (MCA)

Multi-Criteria Analysis enables both quantitative and qualitative criteria to be considered. But at the outset, it also needs to be emphasised that MCA does not provide a definitive solution, rather a rational basis for decision-making. The MCA steps are outlined in the text box below:

Multi-Criteria Analysis

Step 1- select criteria to be used in the evaluation of projects

Step 2 - determine the relative importance of the criteria given the strategic goals of the plan and the project implementation environment – most commonly done by applying weighting to each criterion either by individuals or group session;

Step 3 – rationalise and reduce the number of criteria to be applied to the most important, minimise repetition and overlap of criteria.

Step 4- establish a basis for the measurement of the performance of the project against the criteria – for qualitative criteria this may be expressed in terms of level of compliance, for quantitative criteria standard methods of measurement are applied;

Step 5- projects are assessed against the criteria normally by a panel of experts; for both quantifiable and non-quantifiable criteria, scores are applied that enables the extent to which criteria are satisfied.

Step 6 – incorporate the relative importance of criteria by deriving the product of the criteria weighting from step 2 and the score from Step 4

Step 7 – rank projects, accordingly the highest enumeration representing the project that most likely satisfies the criteria and the strategic requirements for the Plan.

MCA also provides an opportunity to make a comparative analysis of projects when the information on each project is not as detailed as it should be - as is the case with the majority of projects nominated for inclusion in the Plan. Although it is understood that feasibility studies have yet to be carried out for the majority of projects, the procedure is reliant on the project promoting agency providing the SEETO Technical Secretariat with sufficient description of the effects and impact of the project with respect to each of the criteria.

It is also clear that project economics cannot provide the only argument for prioritisation; environmental, social, developmental, strategic, political, legal and administrative aspects are also of relevance. MCA provides a logical approach where any criteria and their relative importance can be taken into account. Being well understood, MCA shall not be described in detail here, but sufficient explanation will be given to provide the context for the application of the process

4.3 Selection and weighting of criteria for prioritisation

Concerns of bias in the procedure or lack of objectivity can, in part, be addressed through the criteria weighting. For example, if the criteria for social impact and cost are highly weighted, projects that best satisfy those criteria, such as smaller projects in mountainous communities will be highly ranked in the priority list.

The criteria weighting pro-forma used in the exercise is attached in annex A. Scores are required to be entered against one or all of the criteria ranging from 0 to 100. It is necessary to note that the total weight given to all of the criteria should be the same for each respondent. The total weight should be 100.

Weighting to be applied to the 2006 to 2010 Multi Annual Plan were agreed by the Steering Committee[2] and are given in the next table.

To reflect changes in policy, strategy and consequently priorities for successive Plans, the Steering Committee may, if it chooses, either to re-confirm the weighting of criteria used in the Plan for the previous year, or alter the weighting using the pro-forma provided.

Although 16 criteria have been identified and described in this text for application in the process, the use of fewer more important criteria would lead to a similar result. This is because the impact of criteria with low weighting will be relatively small. In addition, difficulties in providing information sufficient to evaluate all 16 criteria can be anticipated – at least for use in the earliest Plans.

4.4 Measurement of criteria and availability of data

The process of project preparation necessitates analysis of those criteria considered critical to achieving the specific project objectives and those of the wider strategy for the region. Pre-feasibility study points to the project's potential and the issues that will require special attention in the feasibility study. What is essential though is that the criteria used in prioritisation should be identified in the pre-feasibility study for detailed analysis in the full feasibility study. If project objectives are to improve accessibility then analysis of accessibility is obviously needed, if another is intended to generate development, then development impact needs to be studied. There can be observed a partial disconnection between the aims and objectives of a project and what is actually studied.

[2] Steering Committee Meeting Belgrade 14th February 2006

Criteria Weighting to be used in the Preparation of the Multi-Annual Plan

	Criteria	Group	ALB	BIH	CRO	KOS	SER	MON	MAC	EC	SEETO	Total
	1. Regional Interest	**28**										
1	Coherence with other projects			9	15	15	20	20	10	20	8	**14.6**
2	Proportion of International Traffic			3	8	2	5	10	2	20	8	**7.3**
3	Interoperability + cross border elements			3	7	8	5	5	8	5	8	**6.1**
	2. Economic Development Impact	**28**										
4	Economic Feasibility			20	10	7.5	8	5	10	5	9	**9.3**
5	Development impact			11	5	7.5	10	8	16	5	18	**10.1**
6	Accessibility			9	5	15	7	7	9	5	10	**8.4**
	3. Financial Sustainability	**20**										
7	One off costs			0	7	5	2	3	5	5	6	**4.1**
8	Financial Sustainability			5	4	5	2	5	10	10	5	**5.8**
9	Financing (including level commitment)			4	4	5	8	5	5	5	3	**4.9**
10	Possibility of private financing			6	10	5	8	2	0	5	3	**4.9**
	4. Environmental and social impact	**14**										
11	Environmental impact			3	6	3.5	2	3	4	5	6	**4.1**
12	Promoting sustainable mobility			1	5	3	3	2	0	5	1	**2.5**
13	Social impact			4	4	3	8	8	4	0	4	**4.4**
14	Inter-Modality			2	2	3	2	7	2	5	4	**3.4**
	5.Technical Standards	**10**										
15	Technical feasibility			15	5	7.5	5	2	8	0	3	**5.7**
16	Defined technical standards			5	3	5	5	8	7	0	4	**4.6**
		100	***0***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***	***100***

Note: Criteria weighting from Albania was not available at time of publication but will be taken into account.

Only small proportion of projects submitted to SEETO have feasibility studies or even pre-feasibility studies in place; 65% of projects remain at a very early stage in preparation. Much of the information needed to evaluate criteria is not available. Therefore, it would be expedient for the project proponent to have in mind the prioritisation criteria when specifying the subjects to be covered in the feasibility study.

In the absence of quantitative analysis, the project proponent should briefly describe the intended effects of the project. In the absence of data, evaluation of criteria can be pragmatic, as shown in the measurement frame in the next table. But if hard information exists, it is in the interest of project proponents to include it in the project

data questionnaire[3]. Whilst it is appreciated that exact and current data will not be available for many projects, experienced local experts should have a reasonable understanding of the project to make educated estimates that can be replaced with actual data later on.

SEETO can advise on the elaboration and measurement of all of the above stated criteria and content of the Terms of Reference for feasibility studies to ensure that the results provide the information needed that will enable the criteria to be evaluated.

Participants will be able view the project proposals of all participants from the Web Site, this will help to respond to the criteria of coherence with the projects of other countries.

Knowledge of the existing condition and performance of the network will be increasingly referred to in the planning process as the South East Europe Transport Information System is implemented[4].

4.5 Evaluation of projects for MCA

Following receipt of project submissions, SEETO will score the performance of the projects against the agreed criteria. A systematic scoring method id devised that avoids bias between one project or set of projects and another.

Although the final range of criteria to be used may be less, the scoring frame has been devised covering each of the 16 basic criteria.

The approach at this stage is to use relatively simple parameters including the qualitative “good / fair / bad” where it is assumed that actual data would be hard to find.

The range for scoring is kept to a maximum score of 10 for each criteria. The scoring frame is presented in the table on the next page. The score 0 is not included as this would obviate the inclusion of any criteria, instead the minimum score is unity.

The scoring frame initiates the process at this stage and will benefit from many changes until it is acceptable to the SC. Thereafter changes to the scoring frame may require some level of formal control exercised by SEETO.

[3] The SEETO project questionnaire used in 2005, is available from the Secretariat and can be downloaded from the web site. There were cases where project information known to be available in feasibility studies, was not included.

[4] SEETIS version 1 is due to be launched in March 2006 and Version2 with on-line updating in November 2006

	Criteria	Measure	Scoring
1	**Regional interest**		
1	Coherence with planned projects (in other countries)	Technical Compatibility	Range: all features = 10; less than 50% of features = 2
	+ Importance attached to the projects/measures	Number of CARDS partners in support	Range: all 7 = 10; 2 = 5, < 1 = 2
2	Proportion of International traffic	Simple percentage of AADT	Range: >10% = 10; >2% = 1
3	Interoperability	Common 1) technical, 2) operating, 3) management standards	all 3 = 10; 1&2 = 7; 1 only = 5, 3 partly = 3 etc
	+ cross border elements	Processing and waiting time	20 min =10; 21-40 min=7; 41-60 min=5;1hr-2hr=2, >2=1
2	**Economic and development impact**		
4	Economic Feasibility	EIRR or Traffic/cost ratio or Ratio of traffic / unit construction cost	Range:>20%=10;<5%=2 or high traffic low unit cost =10; low traffic high unit cost =2
5	Development Impact	Spatial / Development Planning Status	Documented developer interest=10;in development plan=7; well described=5;poorly described=3
6	Accessibility	Reduction in journey time in section	Range:>50%=10;<10%=1
3	**Financial sustainability**		
7	Cost (one-off investment cost)	Cost of project	Range:> euro10m=10;11-20=8;21-50=5;51-100=3;>100=1
8	Financial Sustainability	Revenue Secured for Maintenance and operation	Sufficient/secured=10, sufficient not secured=7, mostly sufficient/secured=5, insufficient/insecure=1
9	Financing (including level of commitment)	Financing in relation to cost	all financing in place=10; IFI negotiations ongoing=8; partial commitment 5; in budget =3
10	Possibility of private financing	Potential for PPP	firm commitment=10;strong interest=7;good proposals=5 clear intent / legislation in place=3;no preparation=1
4	**Environmental and social impact**		
5	Environmental Impact	By type of project and whether or not assessed	Improvements measurable=10;neutral=5;negative impact=1
2	Promoting sustainable mobility	Evidence of equitable modal split policies	Stated measure embedded =10; alluded in general 5; omitted = 3; adjudged to have negative impact =1
6	Social impact	Population, ethnicity included, number of communities positively affected;	catchment + 50% + multi-ethno/social groups=10; No change =5; more isolation =1
4	Inter-modality	Number of interchanges / level of potential for integration	Interchange planned=10; potential identified=7; rail/waterway project=5; bimodal analysis excluded=1
5	**Technical aspects**		
1	Technical feasibility	Appropriateness of technical solution	Highly appropriate=10;no change=5;over-design=3
3	Defined Technical standards)	Comparison of standards	Increased standard =10;same standards=5

5 Procedure and Next Steps

5.1 Summary of the Procedure

A procedure is outlined for the selection of priority projects

Step 1 Evaluation :

Evaluate / score projects against the criteria - using the scoring frame above

Step 2 Pre-qualification

Projects demonstrate compliance with each of the strategic categories – in order of category

Step 3 Weighting – Weighting the relative importance of each criteria;

Step 4 Prioritisation – rank projects according to the combined result of evaluation score and weighting

5.2 Next Steps

- Participants shall ensure that project information presented to SEETO covers the criteria described in sufficient detail to enable a reasonable score to be made (taking into account the preparation status of the project).
- SEETO to advise participants of project proposals that do not present the minimum information, as they may not be included in the prioritisation process.
- A priority listing will be produced using the afore-mentioned procedure to obtain the top 15 to 20 highest scoring projects and a second list of next 20/30 best scoring projects.
- Recommendations for soft measures submitted to SEETO and those also considered by the experts at SEETO will be embedded in the Plan
- A regional analysis of the effect of the Plan will be prepared.
- The Steering Committee, at its next meeting will discuss / negotiate to agree a finally approved listing of projects and measures based on the priority lists.
- The first Plan for 2006 to 2010 will be finalised by SEETO and circulated for comment.
- SEETO will prepare for working group meetings where various elements of the Plan are to be advanced.

Experience gained will be used to compile up a planning manual that will be issued later in 2007.

Annex A Project Criteria Weighting Pro- forma

No	Criterion	Weighting
1	**Regional interest**	
1	Coherence with planned projects (in other countries).+ Importance attached to the projects/measures by other countries (8)[5]	
2	Proportion of International traffic (11)	
3	Interoperability + cross border elements (13)	
2	**Economic and development impact**	
4	Economic Feasibility (4)	
5	Development Impact (9)	
6	Accessibility (15)	
3	**Financial sustainability**	
7	Cost (one-off investment cost) (6)	
8	Financial sustainability (2)	
9	Financing (including level of commitment) (7)	
10	Possibility of private financing (10)	
4	**Environmental and social impact**	
11	Environmental Impact (5)	
12	Promoting sustainable mobility (12)	
13	Social impact (16)	
14	Inter-modality (14)	
5	**Technical aspects**	
15	Technical feasibility (1)	
16	Defined Technical standards (3)	
	Total: 100	

Notes to completing the pro-forma:

Allocate points to each criterion (in yellow cells) according their relative importance; ranging from zero to 100. The sum of all weighting score of all criteria should be exactly 100 weighting points.

The scoring can reflect your personal opinion or that of your organisation.
Advise your contact details and submit to the SEETO Planning Manager.

[5] Numbers in brackets are those used in the listing of criteria in SEETO technical note number 1