would turn all of those Federal air, highway, and transit resources back to the States.

Another major item for consideration in the next ISTEA is flexibility of funds. The States, at their national meeting in October, said they can do a better job of programming these resources. They do not think that MPOs in areas below a million people should be allocating Federal aid funds. They have sent a shot across the bows of the localities and the MPOs. We will see how the battle goes over where the decisions are going to be made—at the State capitals or retained at the MPOs.

Many transit agencies and many cities have said they do not receive a fair share of the votes of the MPOs, and we want the next legislation to intervene and deal with that. The future of the C-MAC Program is open to debate, and the future of the Enhancement Program is being debated.

Two casualties of the last year are the Unified Transportation Infrastructure Investment Program and the major reorganization of the USDOT. The UTIP is no more. In response to the 1994 elections, the Secretary proposed a dramatic reorganization of the U.S. Department of Transportation. While the reorganization has not occurred, there have been some organizational changes, including streamlining of the Coast Guard, approval of procurement, and personnel reform in the Federal Aviation Administration.

We are looking for ways to merge highways and transit—especially field offices—so that we have offices working in better convenience and programmatic collaboration, so that maybe you will have fewer offices to deal with.

The philosophy you are going to see coming out of the U.S. DOT is that we think ISTEA laid out some major advances over the previous approach. We think those advances have made an incredibly positive difference. We want to build the next version of ISTEA on this version of ISTEA. There are many principles passed in 1991 that we want to fight for and retain. Our approach is going to be to build on the advances that were made in ISTEA—and not go back.

Historical Context: Emphasizing Problem-solving

Sheldon Edner, Federal Highway Administration

It is my job to tell you a little bit about where we came from and where we are going with MIS. Don Emerson will follow with some things we are hearing about from around the country and then talk about the future. This conference, more than anything else, represents an opportunity for the community of transportation professionals, and those individuals concerned about what is happening in transportation, to share experiences and raise the tough questions on what we need to do regarding MIS.

I can tell you from personal experience, having spent the last two years going around the country trying to explain the concept of major investment studies, that it is not easy to explain. We have emphasized that "no one size fits all." That there is no checklist. That there is no Federal approval of major investment studies. So what is it that we do not approve? It does not have a standard form, and you do not have a checklist for it.

Pre-ISTEA Issues

As a point of departure, let me observe that we did not start out just to define a major investment study. The major investment study exists in its own right driven in part and supported by ISTEA. But there were a number of issues before ISTEA. Of concern to many of us was how we made transportation decisions. It had to do, in large measure, with the whole concept of planning and project development linkage. For many people around the country, the concept of planning has been programming. Let's get the project built. Worry about the other justifications and the fine points later on. We will staple it into the plan at some point. We all know that we need it, on what basis we can justify it, and we can explain it to anybody else who may be open to question, but we all know we need it.

In large measure, the MIS process focuses on how to do a better job of connecting the planning process with project development in a way that provides a better rationale, explanation, and basis for sustaining those investments. We are looking for better explanations for why and how to make choices—not between good and bad, but between two goods. How to figure out where to find the money and for what it can be best used.

The MIS process provides an opportunity to deal with these questions early in terms of planning. It also tends to rectify one of the things that existed pre-ISTEA—that projects were generated in apparent isolation from all other projects with little regard to how to fit them together and how they relate to the overall system. Project development does not look at the consequences for other projects. Project development looks at individual projects.

> *"In large measure, the MIS process focuses on how to do a better job of connecting the planning process with project development in a way that provides a better rationale, explanation, and basis for sustaining... investments."*

Another concern that predated ISTEA is the adequacy of "purpose and need" statements. One of the perennial problems has been how to explain the purpose and need of an improvement. Where does it come from and why? This issue was troubling to environmental specialists and advocates. It was difficult to explain why a project was needed and should be built. Opponents would say, "This is a bad idea," and we would not have a good answer for them. Project development was based on looking at the answers after the fact. We already knew what we were going to build. Now, let's explain it. Let's justify it.

Better statements of purpose and need have nothing directly to do with ISTEA. They were an issue and a concern that existed prior to it.

Another pre-existing condition is that planning and project development organizations, and particularly project sponsors, do not always talk to one another. We have found that one of the most difficult tasks in understanding the major investment study concept is getting people to collaborate. Do you mean we have to work with one another? We have to talk? We have to share our activities with someone else? That is not a new problem. ISTEA did not create that problem, and ISTEA will not fix that problem. In large measure, the issue of collaboration is one of the most fundamental issues that the major investment study is struggling with, and it predates ISTEA.

Also, project development has been used for justification, not problem-solving. We had an idea, we had a solution. We had to justify why it was the solution. But we did not address the problem of looking at what it is we are trying to do, why are we trying to do it, and what our options are. The major investment study is a problem-solving exercise. It is a method for making choices between alternative modes, maybe even combining modes, to solve a problem in a most efficient and effective way. That is not something new. It existed before ISTEA. MIS provides a way to evaluate options and look at them in a broader context, not justify predetermined outcomes.

System performance is a key factor. Pre-ISTEA, individual projects could stand on their own merits without having to raise too many questions on the overall performance or connectivity of the rest of the transportation system. Many times, improvements were made only to create other problems, without anticipating what those problems might be or planning for them effectively. Again, this problem predates ISTEA.

Last but not least, an issue that existed before ISTEA is the issue of how to consider the multi-dimensional aspects of problems we are trying to solve, even beyond transportation mobility.

Transportation planning organizations have had a strong tradition of being able to create good transportation models. Such modeling may be outdated, but it has been a solid foundation of planning in many respects. It does not take into account, however, all the dimensions of all the issues we need to look at in terms of deciding what investments to make.

In many cases around the country, we have heard the transportation modeling process has not been sensitive to some of the other issues that need to be addressed. We have not used an approach that would solve transportation problems involving more than simple mobility. We need to look beyond mobility to figure out how to deal with safety, economic development, and urban form. Many policies and strategies, like congestion pricing, do not lend themselves to modeling techniques.

With MIS, we are beginning to utilize a series of interrelated tools on a corridor level that will provide an opportunity to address these and other questions.

Some other issues predate ISTEA. Pre-ISTEA, there were concerns with detail, rigid processes, and methodologies that were over-done or inadequate, depending on the circumstances. In fact, in evaluating alternatives at

the project development level, the level of detail was often too fine and the methodology too complicated. As a result, we sometimes over-analyzed issues.

We also confronted doing the analysis of alternatives after the fact. The NEPA process, as solid as it has been, is still a late-breaking opportunity to look at alternatives when, in some cases, you have 10 and 20 years of political support for a particular outcome. The NEPA approach is also a legalistic, as opposed to a problem-solving and decision-oriented, approach.

In many cases, the whole process of project development and programming was driven by the sources of funds that were available, rather than the best way to solve the problem. The fact that highway dollars could be spent only on highways was an answer in and of itself. Funding flexibility is slow in coming. Yet more than $2 billion of ISTEA funds has been moved from highway to transit programs.

Another point that predates ISTEA is the issue of cost. Fiscal constraint is often considered one of the benchmarks of what ISTEA did for transportation planning. Many people would say that as part of the planning process, fiscal constraint considerations were even more important than the factors to be considered in transportation planning. The idea behind ISTEA is to develop a fiscally-constrained investment program by evaluating all the transportation alternatives and strategies reasonably available. The focus tends to be on the revenue side.

Project cost estimates have generally been based on a rough calculation that may be 5 to 10 years out-of-date and is probably predicated on very little detailed analysis. Yet, that is the kind of situation that has plagued decision-makers in the past. For highways, this problem has been solved through the cost reimbursement aspects of the program. If you ran over your costs, you just took it from the next year's apportionment. As long as the costs were eligible, we kept drawing down from the future. We may no longer be able to do that.

On the transit side, full funding agreements at least provided some sense of certainty. However, how we are going to be able to obtain the information we need to ensure that funding constraints and fiscal constraints work is a question that predates ISTEA and is even more important under ISTEA.

These pre-ISTEA concerns demonstrate that, in the ideal sense, the planning process should proceed from the identification of a problem through the consideration of alternatives, to a phased implementation of a solution—instead of coming up with the answer and then worrying about the problem.

Through the MIS process, we are attempting to reflect this ideal process. We are also trying to focus on some issues required under ISTEA, such as multimodalism, flexibility of funding, early evaluation of alternatives, public involvement, the Clean Air Act and the issues that it poses, greater focus on State and local decision-making, and the role of the Federal Government as a partner. The Federal Highway and Transit Administrations have a joint responsibility, under ISTEA, for administering the program. The MIS process reinforces and supports this joint approach.

Last but not least under ISTEA, Section 134 mandates that the Federal Transit Administration conform its environmental analysis requirements to the Federal Highway Administration's approach.

These points I have just outlined are elements in the ISTEA legislation that help create the overall justification for the major investment study.

Customizing the MIS process

We are repeatedly asked the question of where ISTEA mandates major investment studies. We have tended to point to the fact that the law creates a context that directs the flexible, multimodal, cost-sensitive, diverse approach to solving transportation problems. What we have attempted to do from a Federal point of view is provide a supportive environment in which state and local decision-makers are provided the opportunity to develop the tools necessary to do that without an intrusive Federal presence. That, perhaps more than anything else, is one of the most difficult factors we face in terms of dealing with an MIS concept.

We have tried to custom tailor this process. We have tried to do it in a way that says, "One size does *not* fit all." From the Federal Highway point of view, we have a strong tradition of having a manual to show us how to do things. Many of you suspected that we had a manual on how to do the major investment studies. We do not. Some of you are convinced that buried in the basement of the DOT building, there is one that we are going to drag out and say "gotcha" when we get down to taking a look at the final stages of the major investment

study process. But that is not true. We have gone out of our way to avoid doing that.

In fact, I have a copy, the only existing copy, of the *Major Investment Study Desk Reference*. I make the point about it being a "desk reference" because, until a week and a half ago, it was the reference manual. We dropped the word manual. We are so concerned about this, in an attempt to avoid the one-size-fits-all notion, that we are trying to make sure that we do not imply, by any stretch of the imagination, that there is a "manual."

So we have a desk reference. It will be available soon. In fact, the reason it is the only existing copy is that it is that close to publication.

The point of the matter is that we are trying very hard to allow to you create a decision process that meets your needs most effectively.

From my point of view, the most compelling reason for justifying an MIS is that it meets your needs, not that it meets anybody at the Federal level's needs. If a major investment study can help you make decisions more effectively, if it serves your purposes more effectively, if it helps you make the difficult choices that you all face more effectively, then those are the most compelling reasons for a major investment study.

We have tried to identify some basic principles to help you do these studies. They are tied to problem-solving and consideration of alternatives early in the planning process. They are built around collaboration. They are tied to integrating planning and environmental analysis early. They encourage proactive public involvement and are built around the principle of "No one size fits all."

MIS Successes and Challenges

Donald J. Emerson, Chief of Analysis Division, Federal Transit Administration

Introduction

This conference comes at an opportune time. The major investment study (MIS) requirement of the FTA/FHWA metropolitan planning regulations has been in place for just over two years, and the time has come to share experiences and assess the impact. This is also a good time to consider the direction of future Federal, State, and local activities.

My remarks will provide an overview of the national MIS experience to date. I will indicate how well the goals of MIS are being achieved and identify six challenges that remain. I will conclude with a summary of ongoing FTA/FHWA activities.

Success stories

The previous speaker, Sheldon Edner, identified several goals that FHWA and FTA had in mind when the MIS requirement was written into the regulation. Four predominant goals are:

- consideration of multimodal alternatives to solve transportation problems;
- collaboration between Federal, State, and regional agencies;
- use of a broad array of evaluation criteria to support decision-making; and
- public involvement.

As FTA and FHWA observe the state of the practice across the country, we see good progress toward these goals. FTA and FHWA have prepared a portfolio of MIS case studies to document some of the most noteworthy success stories.

The Miami East–West Corridor MIS, now nearing completion, is a good example of multimodal problem-solving. The study corridor included suburban development west of Miami, the Miami airport, downtown Miami, the seaport, and Miami Beach. Among the alternatives the MIS has considered are highway widening, HOV lanes, several heavy rail alternatives, a light rail line, bus service improvements, an intermodal terminal adjacent to the airport (with TriRail commuter rail service and possibly high-speed rail), and an airport people mover. Virtually every agency in the U.S. DOT has been involved, along with their State and local counterparts, with Florida DOT as the lead agency.

Two other examples of multimodal MISs are the Route 78 study outside Atlanta and the Route 301 MIS in Maryland. Both of these looked at public policy options such as land use, in addition to alternative highway facilities, transit facilities, and multimodal packages.