Road Safety Guidelines

for the Asian and Pacific Region

Appendix C

COMPARATIVE STUDY: FIJI ROAD SAFETY ACTION PLAN

Asian Development Bank

1 THE PROBLEM

Fiji, in common with other developing countries, saw a deterioration in road safety during the period 1988-1991. Increasing vehicle fleets began to cause problems, rehabilitated roads supported faster traffic through small communities along the national road network, and inadequate enforcement and medical services meant that driver behavior was poor and injured victims did not get the early medical attention they needed. There was a fragmentation of responsibilities and inadequate knowledge and effort to tackle the problems facing the country. Road accident deaths increased steadily year by year and peaked in 1991, the year before the start of the country's Road Safety Action Plan.

2 THE DEVELOPMENT OF A STRATEGY AND ROAD SAFETY ACTION PLAN

The Asian Development Bank (ADB) appointed a road safety advisor to assist the Bank and the Fiji Government to develop a strategy and to oversee implementation of a Road Safety Action Plan. The purpose of the Action Plan was to develop institutional capability to address road safety problems effectively and to oversee implementation of the most urgent improvements over a three- to three-and-a-half-year period. Periodic inputs were provided by other specialists working under the direction of the road safety advisor.

3 IMPROVEMENTS IMPLEMENTED

The improvements implemented covered all major sectors related to road safety and the individual countermeasures were phased to ensure maximum effect. An Action Plan was devised to make best use of the US$3 million budget for the Plan. The strategy adopted was as follows:

1 complete funding of key strategic improvements needed in order to carry out other activities (for example an improved accident data system);
2 "seed" money to encourage desirable developments. Funds to initiate or support, for a limited period only, selected developments and activities that would eventually be taken over by other funding;
3 institution building for safety. Funds to encourage and reinforce the development of existing Fijian organizations and institutions that could make a long-term contribution to safety by assisting them in developing appropriate organizational structures, working manuals, courses, and training programs to tackle the road safety problems in an efficient manner; and
4 staffing development and technical assistance. Funds for specialist training of key personnel so that in due course the wider safety improvements necessary could be implemented in Fiji by adequately trained and skilled local professionals; for the interim period when specialist consultancy assistance would be required to assist in planning and implementation of the key strategic improvements; and the training of local staff through demonstration projects.

The following pages outline the activities undertaken as part of the Fiji Road Safety Action Plan and the framework used in monitoring implementation of the Action Plan is presented at the end of this Appendix.

4 FIJI ROAD SAFETY ACTION PLAN

The focus and strategy of the Action Plan was as follows: initiate the most urgent improvements; tackle problems where there were known and effective solutions available; and to develop and train local professionals in the key institutions so that they could more effectively implement the wider road safety improvement program needed in Fiji.

The project was broken down into two phases with the four most urgent projects (1-4 below) undertaken from the start and the second set of projects brought into play during the second phase of the Action Plan. The sectors addressed and the improvements implemented are detailed below.

1. Accident data system. The existing data system was poor and allowed only limited manual analysis to be undertaken, which gave little or no understanding of the characteristics and nature of the road safety problem in Fiji. A new accident data form was developed and introduced nationally after pilot testing. A new microcomputer-based accident data storage, retrieval, and analysis system (Microcomputer Accident Analysis Package [MAAP] 5 from Transport Research Laboratory [TRL], United Kingdom [UK]) was established at police headquarters and a police accident unit trained to operate all aspects of the system. The Police Accident Unit (PAU) is now operating independently and providing the annual statistics reports to all key agencies so that appropriate countermeasures can be drawn up in each sector.
2. National Road Safety Council (NRSC). Legislation was developed and passed to establish an NRSC with statutory powers to oversee road safety improvement. A building was provided to create an NRSC headquarters and four vehicles were provided to operate as mobile publicity exhibitions. Videos, overhead projectors, and other training equipment were provided to assist in carrying out education and publicity, and road safety materials were produced to raise public awareness. Funding mechanisms were included in the legislation so that a levy of 10 percent was to be applied to all third party insurance policies to be handed over to the Safety Council. Some staff were seconded from other member agencies of the NRSC and other staff, such as the executive director and several technical staff, were hired directly by the NRSC to carry out the secretariat function of the Council. The Council is now fully active and carrying out publicity and education activities all over Fiji through a network of local divisional councils, and even (in some cases) municipal councils.
3. Infrastructure Improvements. A small Traffic and Road Safety Unit was established in the public works department and the staff trained in carrying out accident prevention and accident reduction. Accident prevention activities included the introduction of safety audits, improved access and development controls, and training of the unit in road safety issues. The accident reduction activities included identification and elimination of

Plate 1 (left): Road marking to improve safety.

Plate 2 (right): Police accident unit staff.

the worst accident black spots, the implementation of route action plans and mass action plans, and the development of traffic management schemes for the main towns and urban areas in Fiji. Guidelines and procedure manuals have been prepared for the Unit, which is, with its three Fijian engineers, operating independently and able to carry out an effective accident prevention and accident reduction program, and provide advice on these activities to other engineers in divisions and municipalities.

4. Traffic Law Enforcement. In this area, considerable assistance was given to establish a Highway Patrol along the major road network and to establish a traffic police course at the Police Training College. Police personnel were also instructed in the use of radar, speed detectors, and alcohol testing devices, and a number of practical exercises were undertaken to train them in carrying out operations on drunk-driving, road worthiness checking, and speed detection. Traffic police were also provided with specialist rescue equipment for cutting vehicles and rescuing victims, and trained in the use of this equipment. The net result is that there is now a reasonably effective traffic police enforcement capability along the major national roads in Fiji. The police are capable of traffic law enforcement and are able to provide a rescue capability also.

5 Traffic Legislation. As part of the Action Plan, the existing traffic act was revised and a draft act prepared. It is now awaiting formal approval by Parliament. This, among other issues, addresses gross overloading and how to deter this activity and enforce compliance using mobile weighbridges.

6 Child Traffic Education. A number of important educational projects was initiated by the child education specialist. The projects included a road safety theater production to visit schools, university research into road skills training programs for children, the printing and distribution of guidelines for teachers so that every teacher would have some knowledge about teaching safety to young children, development and printing of a road code and leaflets on lessons for life for parents so that they could be involved in teaching children, and development and printing of special school materials based on a character (the "Road Ranger"). The advisor also trained a counterpart in road safety education officer and working with him and

Plate 3 (below): Police spot checks on drink-driving.

Plate 4 (bottom): Safety of schoolchildren

Plate 5 (right): Overloaded crane truck.

Plate 6:
Drivers in Suva.

the local curriculum development units developed appropriate teaching materials for children for use in schools. These are being tested in eight elementary schools. The net result of all these activities is that there is now active and effective road safety materials development and road safety teaching in Fijian schools, and this will have long-term benefits for the safety of young children in the country.

7 Driver Training and Testing. In this sector the main improvements implemented were as follows:

- introduction of new oral questionnaires with a preset pass mark;
- introduction of standardized licensing test scores and test routes; and
- development of comprehensive manuals for all aspects of driver licensing, including licensing of driving schools and instructors.

It also included monitoring, periodic reporting, and analysis of all driver examination results, development of a revised road code consistent with a revised traffic legislation, and preliminary work with the driving schools industry on improving professional standards and the development of a standard curriculum.

Plate 7:
Roadside spot checks of roadworthiness.

During the Project, all existing driver examiners were given training on the new manual and procedures, and, in addition, the specialist advisor worked closely with the local specialists in developing a defensive driving course suitable for Fiji. A Defensive Driving Instructor Course was also developed and a large number of Fijian instructors was trained. The course has been institutionalized and is now available from the Fiji National Training Council, which has a pool of about 20 fully trained defensive driver instructors from which the Council will be able to draw to conduct courses in the future.

8 Vehicle Inspection and Roadworthiness In comparison with the other sectors, not as much progress has been made in this sector, largely because of the question over the mechanical competence of the existing staff engaged in vehicle inspections. Nevertheless, new inspection procedures have been developed that provide a structured approach to the inspection of any vehicle and the establishment and documentation of pass/fail criteria. All examiners have been trained in these procedures and comprehensive reference and policy manuals have also been developed. Acknowledging the general poor condition of infrastructure, the Fijian Government has embarked on a capital investment program to upgrade these facilities. Advice has also been given on the possibility of introducing testing by private operators regulated by the Department of Road Transport. Guidance has been provided on the policy, technical standards, and administrative procedures that may be necessary. In order to reduce the likelihood of unroadworthy vehicles using the road network, vehicles and equipment were purchased for the Department of Road Transport to use for on-road enforcement of vehicle roadworthiness. The vehicle inspectors, working in harmony with the police, were also trained in carrying out roadside spot checks and inspections of vehicles so enforcement exercises would become part of the routine in Fiji. These are now taking place regularly.

9 Emergency Medical Services. The absence of emergency medical services to help road accident victims was a cause for concern. The Project included some

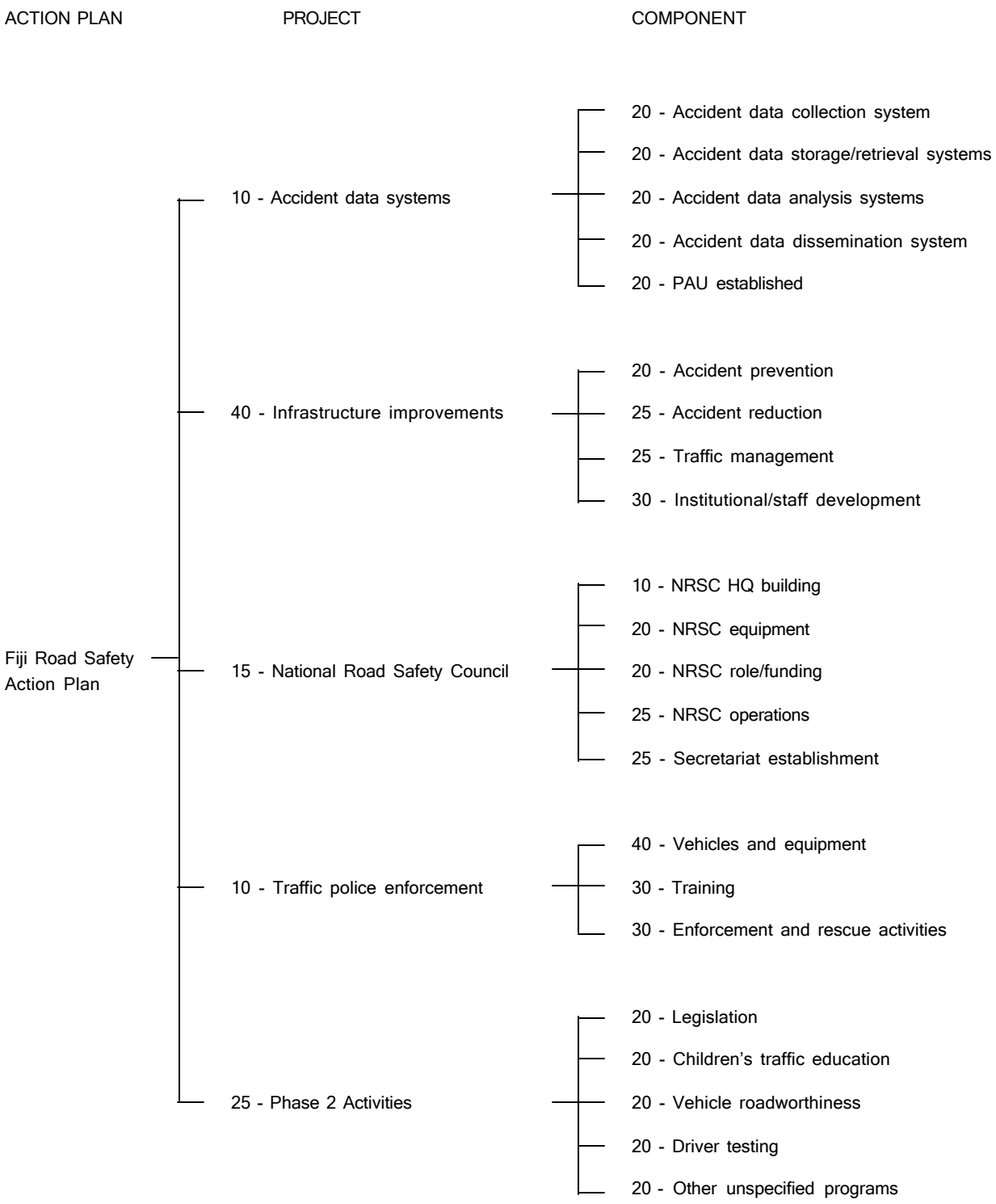
specialist advice in reviewing the existing provision of emergency medical services by voluntary agencies, the fire service, and the hospitals, and the development of pilot programs to try to improve the situation. A pilot scheme has been devised, partially drawing upon voluntary funding of St. John Ambulance and partly with some assistance from the Government to try to develop a pilot emergency medical system for the Suva area. If this is successful it can be extended to other major towns and eventually along the national road network.

5 MONITORING AND EVALUATION

There are often serious problems in monitoring the effectiveness of the aid-funded projects, especially on the nonquantifiable areas, such as to whether institutional impact has occurred or whether the developmental objectives have been attained. This Project was monitored using the disaggregated effectiveness evaluation (DEE) technique, which is particularly appropriate for monitoring the effectiveness of aid-funded projects and for assessing achievement of objectives. The Project was monitored quarterly by the Government and the results were fed back to the aid agencies and to the safety advisor for action as necessary. The whole action plan was originally expected to be implemented by December 1995, but because of some temporary budgeting problems within the Public Works Department, some of the work had to be rescheduled. This was particularly so with respect to the infrastructure improvements, the black spot improvements, and some of the route action plans, which had to be postponed until the following budget year. As a consequence, the progress achieved with respect to the originally stated developmental objectives in each sector by March 1996 were as follows:

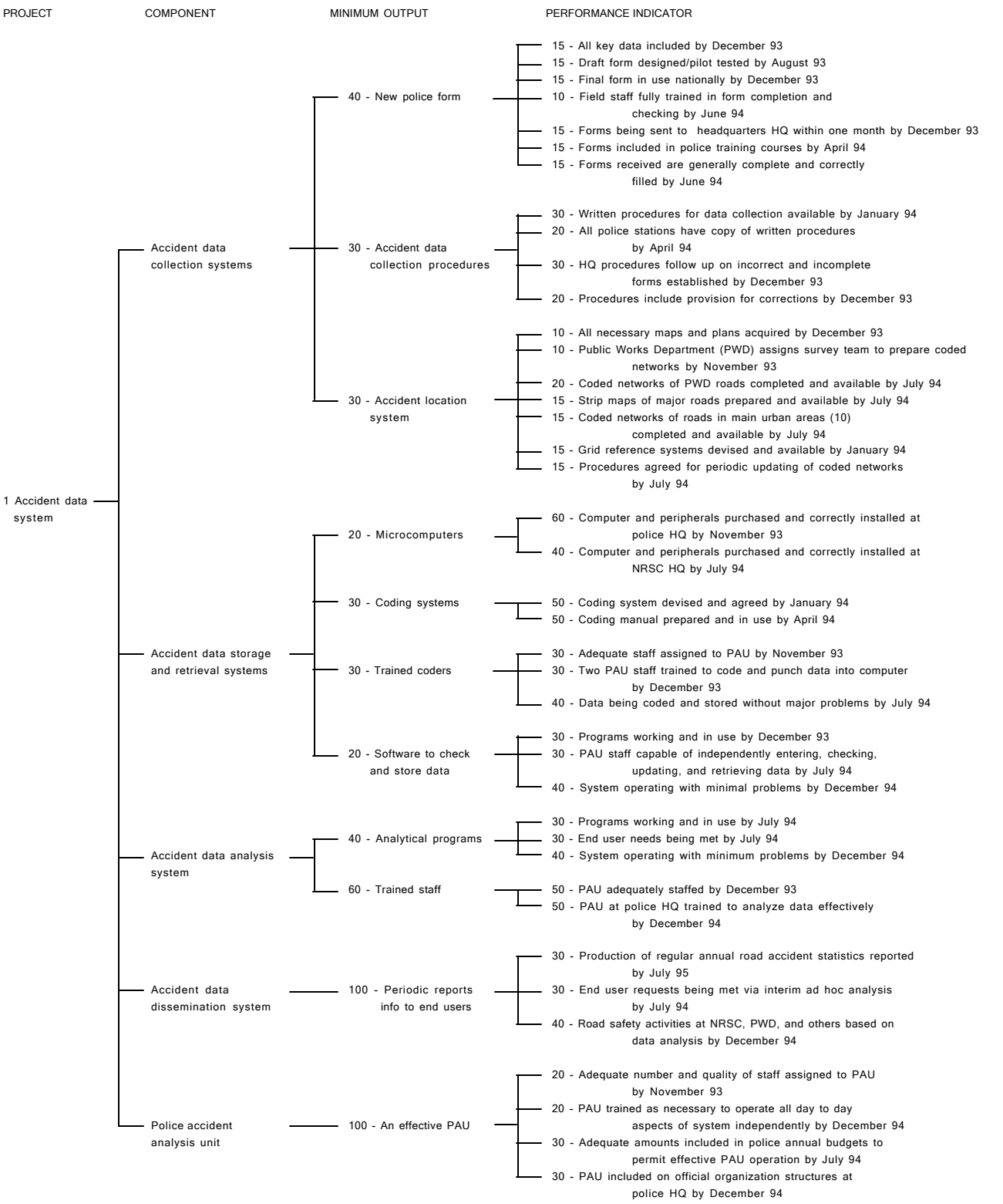
1 accident data system: 100 percent;
2 infrastructure (implementation still ongoing): 80 percent;
3 Road Safety Council: 100 percent;
4 traffic police enforcement: 90 percent;
5 traffic legislation: 83 percent;
6 traffic education: 84 percent;
7 vehicle roadworthiness testing: 100 percent;
8 driver testing and training: 76 percent; and
9 emergency medical services (implementation still ongoing): 60 percent.

It must be noted that the above percentages are a measurement of achievement of the developmental objectives andinstitutional impact of the project. In most aid-funded projects, achievement of even 50 percent of the stated objectives would be considered quite successful. Achievement of 80-90 percent of the stated objectives after three to four years is a significant achievement. This Project, therefore, has been extremely successful in building up the capability of local institutions to tackle road safety problems and has resulted in much enhanced road safety activity being undertaken in Fiji. Although the primary focus of this Action Plan was institution building, the Plan has already improved road safety and created safer roads. Road accident deaths have fallen by about 20 percent in comparison to the 1991 figure (the year before the Action Plan commenced). Further decreases in the number of deaths are expected as the benefits of the Action Plan begin to be realized by the Fiji Government.



ACTION PLAN DEVELOPMENTAL OBJECTIVES
Institutional strengthening and development of key institutions and individuals in Fiji in order to enhance their capability to develop, implement, and oversee improvements in road safety and traffic management nationwide.

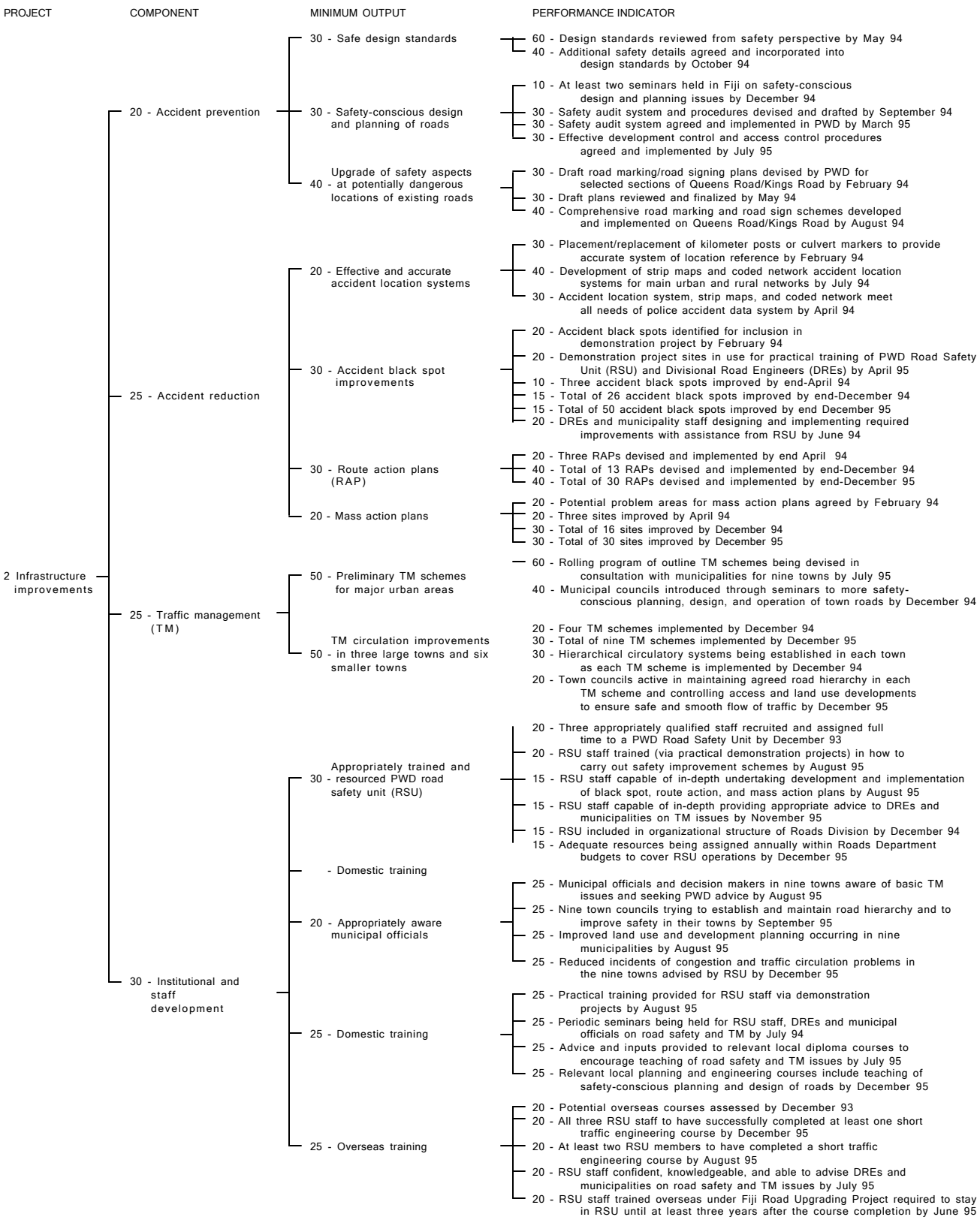
Figure 1: Fiji Road Safety Action Plan



PROJECT DEVELOPMENT OBJECTIVE

An effective accident data system, operated by Fijian police personnel that permits the scale, nature, and characteristics of the accident problem to be properly defined so that appropriate remedial measures can be developed by relevant agencies to reduce the numbers of injuries and deaths on Fiji roads.

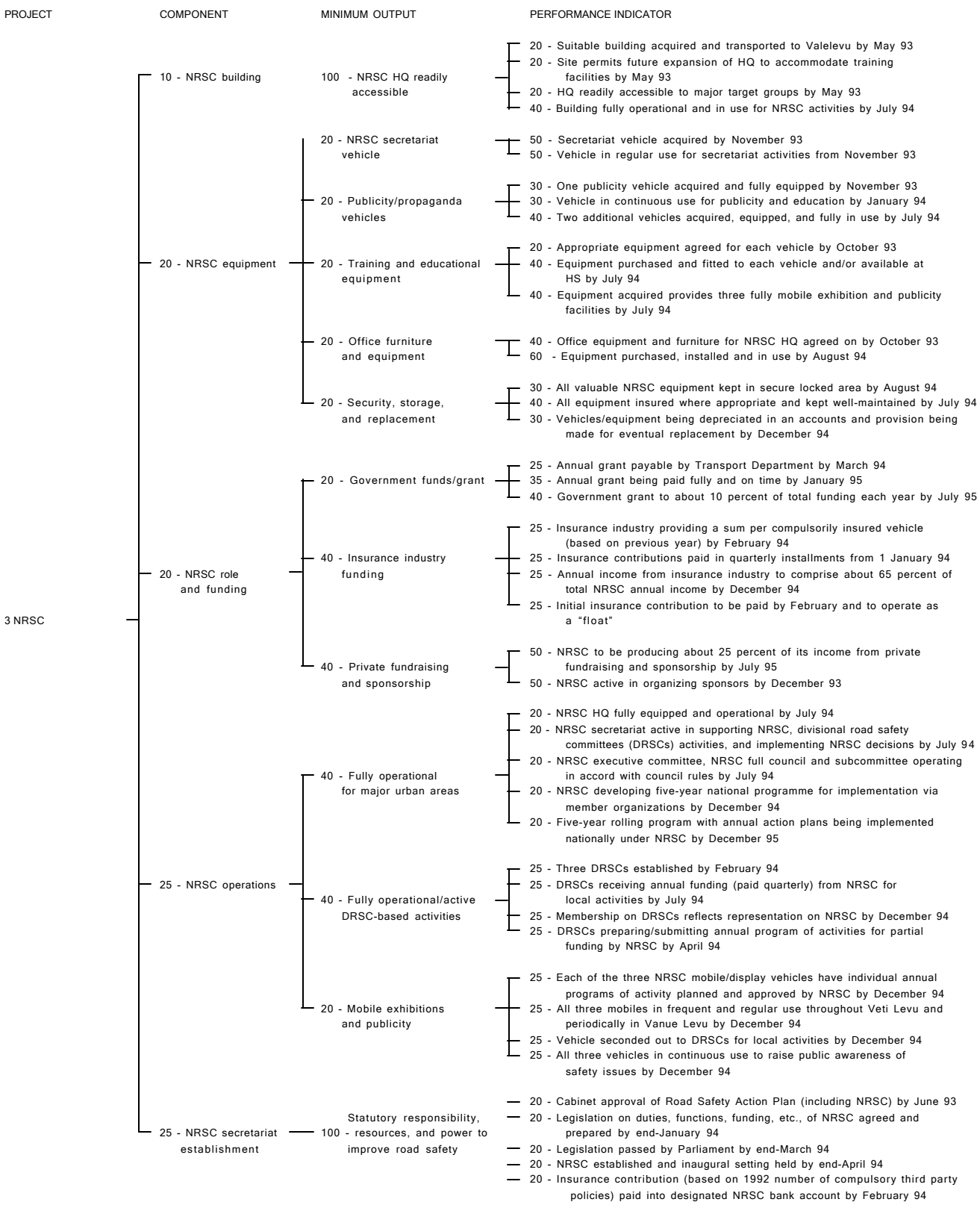
Figure 2: Project 1 – Accident Data System



PROJECT DEVELOPMENT OBJECTIVE

Implementation of a systematic program of accident prevention and reduction to improve hazardous locations on urban and rural roads, to improve traffic circulation in towns, to introduce safety-conscious road planning and design practices in Fiji, and to enhance the knowledge, capacity, and capability of a small team at PWD HQ to carry out and continue such work independently by the project end.

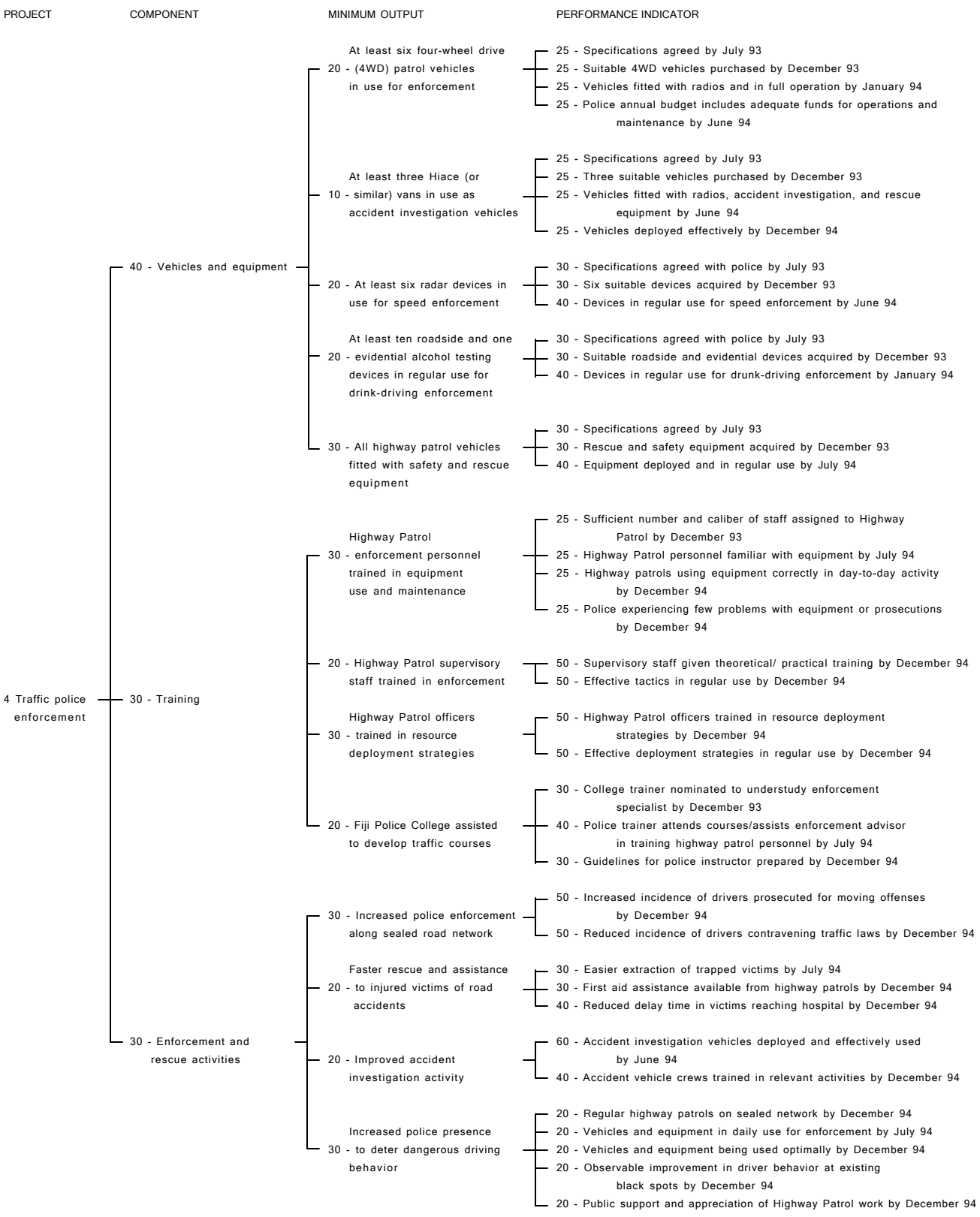
Figure 3: Project 2 – Infrastructure Improvements



PROJECT DEVELOPMENT OBJECTIVE

The development of effective coordinating mechanisms at national and local level to encourage a multidisciplinary approach to road safety which will lead to the development and successful implementation of a Comprehensive National Road Safety Plan and Strategy.

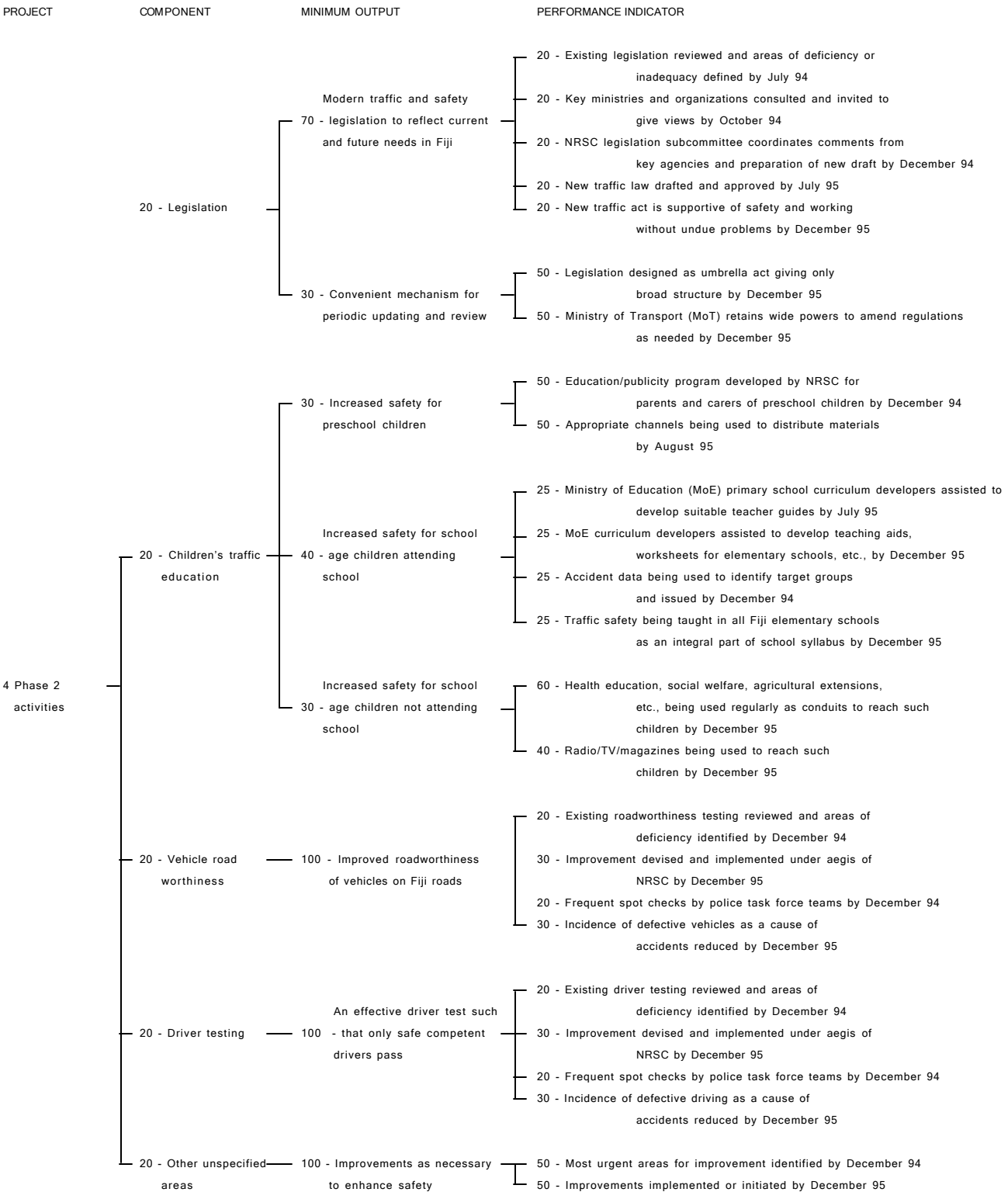
Figure 4: Project 3 – National Road Safety Council



PROJECT DEVELOPMENT OBJECTIVE

Training of Highway Patrol personnel and the establishment of effective Highway Patrol activities along the major roads in order to provide quicker assistance to road accident victims and to deter dangerous driving.

Figure 5: Project 4 – Traffic Police Enforcement



PROJECT DEVELOPMENT OBJECTIVE

Implementation of the most urgent improvements in legislation, children's traffic education, and vehicle roadworthiness inspection, driver testing and other areas as required in order to improve the road safety environment in Fiji.

Figure 6: Project 5 – Activities (Projects 5-8)

Road Safety Guidelines for the Asian and Pacific Region

The guidelines cover 14 individual sectors affecting road safety, with four introductory chapters and four appendices. Information is presented in a series of freestanding documents that can be extracted for distribution and discussion.

Executive Summary
1: Introduction and Background
2: Road Safety Trends in the Asian and Pacific Region
3: Road Safety Action Plans and Programs
4.1: Coordination and Management of Road Safety
4.2: Road Accident Data Systems
4.3: Road Safety Funding and the Role of the Insurance Industry
4.4: Safe Planning and Design of Roads
4.5: Improvement of Hazardous Locations
4.6: Road Safety Education of Children
4.7: Driver Training and Testing
4.8: Road Safety Publicity and Campaigns
4.9: Vehicle Safety Standards
4.10: Traffic Legislation
4.11: Traffic Police and Law Enforcement
4.12: Emergency Assistance to Road Accident Victims
4.13: Road Safety Research
4.14: Road Accident Costing
Appendix A: Useful Documents Worth Acquiring
Appendix B: International Contacts and Organizations
Appendix C: Comparative Study: Fiji Road Safety Action Plan
Appendix D: Comparative Statistics

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