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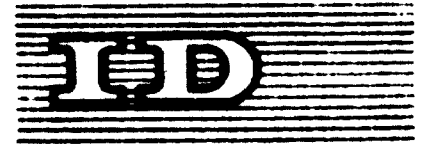
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CONTRIBUTION OF DEVELOPED COUNTRIES TO
MAINTENANCE IN DEVELOPING COUNTRIES

by

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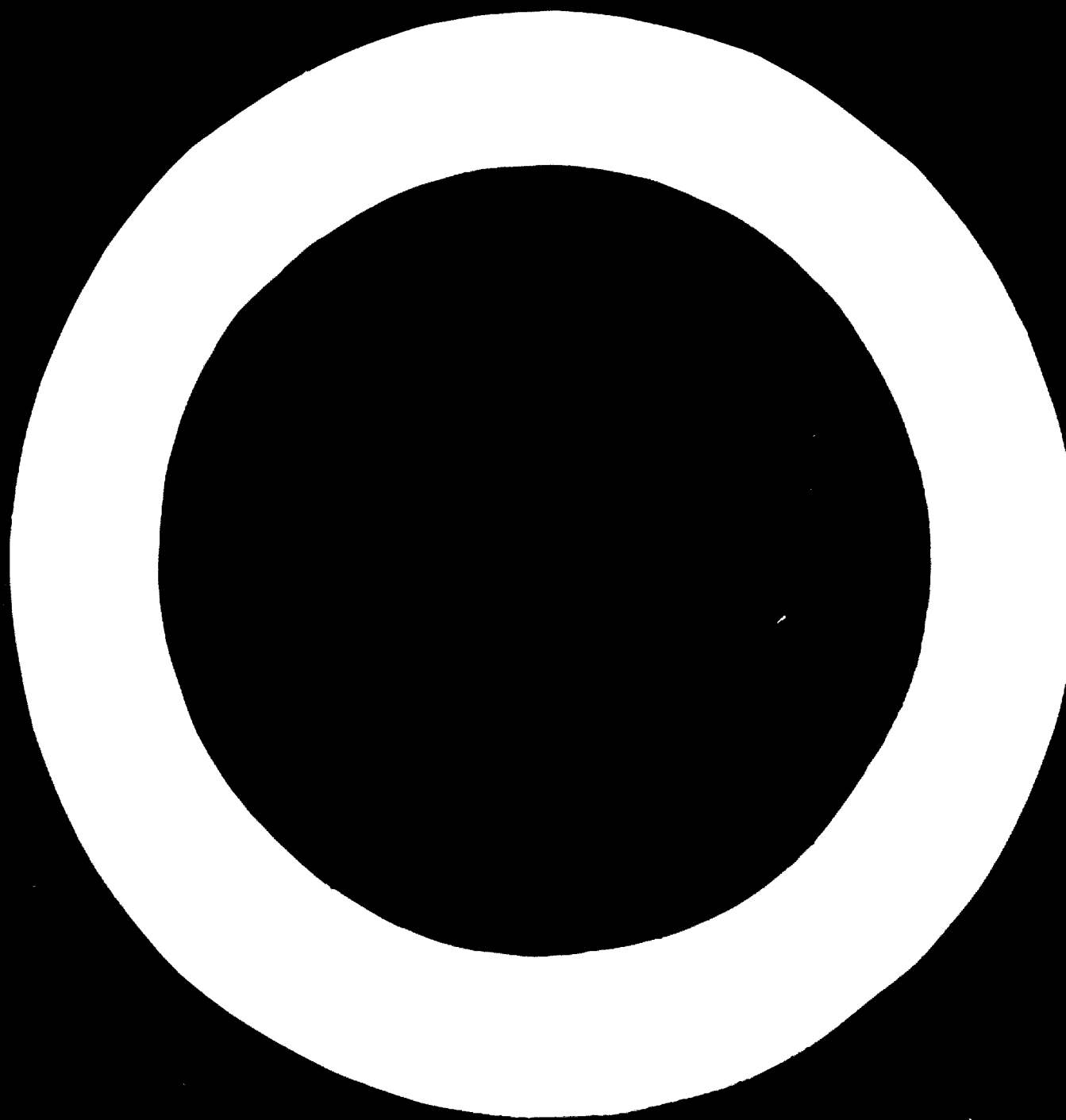
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We regret that some of the pages in the microfiche copy of this report may not be up to the proper legibility standards, even though the best possible copy was used for preparing the master fiche.



This paper deals specifically with development aid given by the Federal Republic of Germany in the field of maintenance. In this connection it is intended to describe only measures taken within the framework of official development aid (capital aid and technical assistance), whereas privately financed assistance will be covered in the paper entitled "Contribution and Role of Industries in Advanced Countries in Improving Maintenance and Repair Facilities in Developing Countries."

The extent of development aid given by the Federal Republic of Germany during the First Development Decade was determined by the so-called application principle, according to which the Federal Republic's financial and personnel assistance measures were taken in compliance with project-tied applications made by developing countries for capital aid or technical assistance. Problems of maintenance and repair have in this connection been dealt with only when they were included in the application. Project-tied applications submitted to the Federal Republic of Germany by their very nature include requests for aid only as regards training and advisory functions to be performed within the framework of technical assistance, since capital aid is not tied to invitations to tender and the responsibility for all measures in connection with project preparation and implementation is left to the developing country concerned. This does not exclude the possibility that technical assistance in the form of integrated measures may additionally be granted to capital aid projects.

The following groups of development projects being undertaken with the support of German technical assistance should be mentioned in this context:

1. Establishment and running of technical training centres for trade, crafts and industry at degree level (schools of engineering), at advanced level (schools for master craftsmen), and at medium level (schools for skilled workers and craftsmen), technical training centres in the fields of agriculture, broadcasting, posts and telecommunications, transport, and other specialized fields. The total number of training centres amounts to approximately sixty.

These technical training centres provide basic and specialized training courses. They also provide on-the-job training, i.e., practical problems of maintenance and repair can also be covered (e.g., training centres for motor vehicle repair, repair shops for agricultural machinery).

The promotion of training centres in developing countries by private German firms must also be mentioned.

Six training centres for apprentices have so far been promoted by private German firms in six developing countries. In addition to providing technical training and instruction regarding the operation of the most varied types of machinery, the programme includes instruction in the maintenance and repair of equipment and installations.

2. Assignment of advisers who instruct personnel in developing countries on technical and organizational aspects in connection with the supply of machinery and equipment for technical assistance projects or capital aid projects which predominantly serve production.

Here emphasis is placed on on-the-job training; maintenance and repair must be part of an effective advisory programme. In addition, the required workshop equipment must be available and other requirements must be met, such as storage facilities for spare parts. Project planning must take account of this.

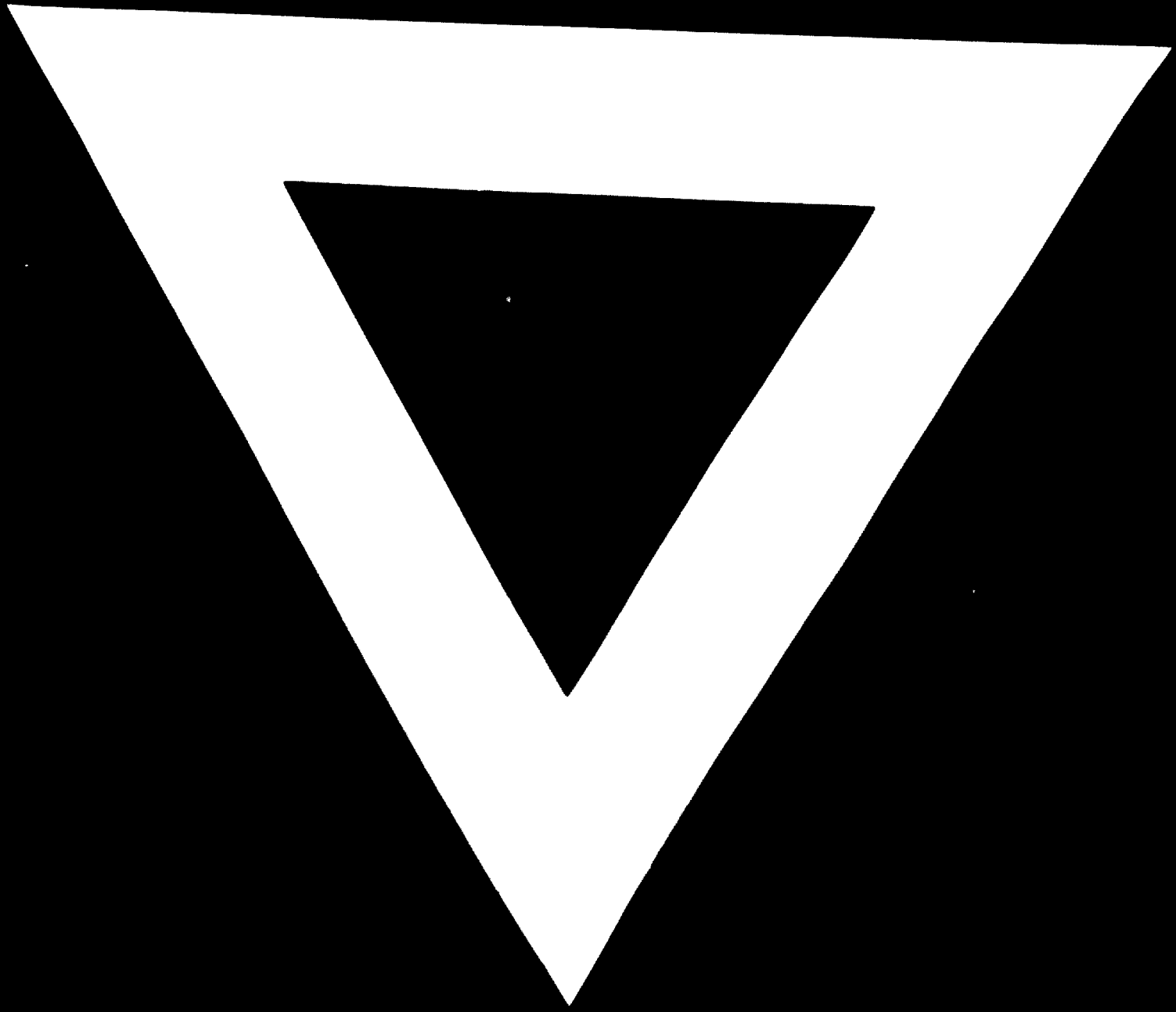
The establishment of several road maintenance shops for training purposes in African countries may be taken as example; their training programmes include, apart from road construction and maintenance, the establishment of workshops, spare part depots and facilities for the maintenance and repair of building machinery and technical equipment. The same applies to the numerous technical assistance projects involving motor vehicles, agriculture and telecommunications. Particularly within the framework of maintenance support, spare part supplies are financed through commodity aid from capital resources.

In the future higher priority must be accorded to maintenance and repair. With the increasing industrialization of a developing country, questions of technical management, servicing and repair, and also as a consequence the maintenance of the production capacity, are gaining in importance. It is well known that there are shortages of both equipment and personnel, and that industrial production depends on management which is efficient from a technical and administrative point of view. The managers of the enterprises in developing countries taking decisions on political and technical matters will therefore have to pay increasing attention to the provision of equipment and personnel training in this sector.

In the Second Development Decade the Federal Republic of Germany will give special attention to the problem of achieving—within the framework of increased regional programming—adequate technological development, and the proper maintenance of plant, machinery and equipment which this entails, with the aim of maintaining the production capacity that has already been established and ensuring consistent quality of production. The countries progressing towards industrialization, therefore, should create—parallel with the provision of maintenance and repair facilities—a quality control system in the sector of trade and industry with a view to maintaining production standards by means of a well-organized production control system supported by suf-

efficient resources and a suitably trained staff. Such a system should provide for constant inspection of the finished product, and checks should be carried out at the various production stages. The prerequisites for competitive production of goods for an international market would thus be established, and complaints concerning the quality of delivered products—because they do not comply with the terms of delivery or standards—would be reduced to a minimum. At the same time greater emphasis would be laid on safety precautions and, as a result of the introduction of a production control system, the enterprises would be run more efficiently. The Federal Republic of Germany is prepared to support these efforts wherever possible.





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