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Considerations of "Functional" vs. "Specialist" Organization  
of Department of Technical Operations

It has been suggested that it might be better to organize the new Department of Technical Operations in separate divisions of engineers and "resources" or "practical" economists rather than to consolidate these specialists in the proposed functional divisions--Agriculture, Industry and Mining, and Public Utilities.

The proposed organization of the department is already mixed since along with the functional divisions, a General Division of financial specialists is contemplated. We consider the fifth and last proposed division, Equipment Procurement, to be functional.

Reasons for separate divisions of engineers and economists:

1. This will provide for more efficient use of these engineers and economists through spreading of the workload.
2. Separate divisions for engineers and economists would mean respective engineer and economist division heads. Each should be better able to evaluate the work of staff trained in the same professional discipline as himself, and work assignments and general understanding might be better than would be the case under functional divisions without professional homogeneity.
3. As a matter of professional pride, economists and engineers may prefer separate divisions so that their studies and reports will retain their individual character. Recruitment of first-class professionals might be more difficult if engineers and economists are consolidated.
4. This will not require that engineers be identified rigidly with specific fields such as agriculture, mining, etc.
5. The above argument applies also to economists.

Reasons for functional divisions:

1. This provides closer working relationships between engineers and economists under a single immediate head, thus eliminating the requirement of coordination through higher levels.

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2. Engineering and economic "piecemeal" appraisal of projects by separate divisions would be eliminated. This would provide that responsibility for appraisal of any project would rest with a single division head.
3. This will provide for single responsibility at the division head level for appraisal of specific fields of economic activity (sector, or programs).
4. This will provide for focussing, within the Technical Department, contacts with the responsible operations officer of the area departments in the case of each specific project.

### Conclusion

Advantages of separate divisions of engineers and economists are outweighed by coordination difficulties and the department should be organized functionally. Flexibility of assignments within and between functional divisions, as necessary, will minimize problems of morale, qualifications, workload and recruitment.

Reasons against separate divisions of engineers and economists apply equally against a separate division of financial specialists. With a financial expert as assistant director, or financial adviser to balance an engineer adviser, financial appraisal of projects or sectors of programs should be adequately represented at the managerial or department head level. Under the proposed organization, end-use supervision will require cooperation and coordination between the engineers of the three functional divisions and the financial specialists separately organized in the General Division. These engineers (plus economists) will be responsible for "pre-natal" and "post-natal" care on a project basis, and integral financial aspects should logically be under the same divisional supervision. If the seven available financial specialists were assigned to the functional divisions, the department would be consistently organized on functional lines.

If a separate division of financial specialists is to be retained, other titles have been suggested which might be more appropriate-- Financial Appraisal, Projects Finance, or Financial Analysis.