

PROCEEDINGS OF THE
INTERNATIONAL WORKSHOP ON

SOCIAL SECURITY REFORM

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Editors



Systems Research Institute
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Proceedings of the International Workshop
held in Warsaw on 23-24 September 1997

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Warsaw 1998

Publication of this volume was made possible due to financial assistance of:

- International Institute for Applied Systems Analysis
- Polish Committee for Cooperation with IIASA
- State Committee for Scientific Research
of the Republic of Poland

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Polish Academy of Sciences
Warsaw, 1998

ISBN 83-85847-14-6

Chapter 2:

A Way to Formalization

Multicriteria modeling, group and negotiation support in the case of social security reform in Poland*

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In the case of Social Security Reform (SSR) there is a number of decision making problems in which several actors are involved. The actors (political parties, trade unions, insurance companies, as well as individual workers and pensioners) look at the SSR from different points of view and formulate different wishes. To make the decisions a consensus of the actors involved is required. Let me mention two examples.

The first one deals with the process of discussion and acceptance of SSR in the Parliament. It relates to overall analysis of the SSR, including quantities describing, in particular, macroeconomic, capital market and social impact of the reform in a given time horizon. The actors involved in the process: the government, political parties and trade unions have in general different (multicriteria) objectives and preferences. It seems that a decision support system based on relevant model facilitating the analysis and aiding the actors to find the consensus would be very useful.

The second example relates to group decision and negotiation problems in the case of the third pillar of the SSR in Poland. Within the pillar an additional pension is provided based on voluntary savings in the employee pension fund. The employee pension fund can be implemented by an employer if not less than 50% of employees in his institution accept it. It means that at least 50% of employees have to reach consensus as to the conditions of the pension fund and selection of the firm managing the fund. The employees deal with multicriteria decisions. Each

* Intervention at Panel Discussion.

employee has, in general, a different risk perception with respect to life expectancy and future earnings, has different view on how to share earnings between current expenses and the contribution to the fund. On the other hand there are various firms managing pension funds and offering different conditions. The problem is how to aid the employees and the employer to make such group decision. It seems that a computer-based decision support system could be very useful here as well.

There is a body of experience including methodological background and construction of decision support systems aiding multicriteria analysis and negotiation process. Let me mention multidisciplinary projects on regional modelling, and on modelling of Polish agriculture led by Roman Kulikowski, and on methodology of multicriteria decision analysis and support led by Andrzej Wierzbicki. The general idea consists in construction of a relevant substantive model of the problem and then a computer based system which can aid actors in multicriteria analysis. Elements of modern game theory are applied in interactive learning procedures aiding multilateral analysis and mediation process. Several papers dealing with the problems are given in references. I think that the experience obtained within the projects developed in cooperation with IIASA can be utilized in the case of SSR. It is obvious that in the case of SSR new methodological and practical problems arise and there is challenge for further research.

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