

SURVIVAL CONFLICT OVER LIVELIHOOD, ENVIRONMENT AND POLICY TRADE-OFF AN ILLUSTRATION FROM RAJAJI NATIONAL PARK CONFLICT, UTTRANCHAL, INDIA

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1. Introduction

This paper deals with conflict resolution process in integrated disaster risk management (IDRM) policy giving emphasis on livelihood factors, environmental degradation and local level development policy. In 1983, the confrontation arose between the park authority of Rajaji national park and the van gujjars who have been living in the park since long back. The real conflict is focused on somewhat forcible displacement of forest-based families from their traditional habitat and disruption of their livelihoods and also the resource rights of the local people who are staying in the buffer area of the forest. The major claim made by the government is to clear the national park area from encroachment.

In this case, survival aspect referred the livelihood protection of the gujjars including animal husbandry life style and also includes preservation/protection of the important biodiversity units in the park and the interest of the adjacent villagers. Growth in this case may include conservation / protection, diversifying the biodiversity base of the Rajaji National Park, judicious use of the forest resources etc. It may also include a shift from nomadic nature of the dependent population to a more sedentary nature of livelihood in future (as practiced in many other countries) , thereby, reducing/ weakening the base for livelihood based conflict in future and also satisfy the human rights issues.

2. Conflict analysis

2.1 Modeling the choice

The confrontation of this dispute has been modeled and analyzed in different phases. The main players and their options have been identified to structure the conflict. In this case the different phases and the structural changes of this conflict have been traced and analyzed. The contingent externality is discussed as an effective force to make a breakthrough from both the status quo and the possible state of collapse, and if avoided, quite likely reaching an acceptable steady equilibrium for all the stakeholders. To model the dynamic choice of opportunity of the players the contingency conflict management model (CCMM) is applied in this case (Sakakibara and Okada, 2004). This model addressed the conflict resolution process to involve new external agents who can provide the new opportunity windows to the concerned players in the conflict to find the collaborative solution. This type of game will continue incorporating new agent/agents unless all the players can find the cooperation ground. This extension process of the resolution scope in a particular manner is called 'scoping.'

Keywords: integrated disaster risk management conflict; contingency conflict management model ;GMCR

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2.2 Contingency Conflict Management Model (CCMM)

The extended GMCR (Graph Model for Conflict Resolution) model is used to structure the dynamic contingency of the conflict in our proposed case study area. Basically the GMCR model is based on game theory which is further extended by Fraser and Hipel. In this model instead of cardinal utility, decision maker's ordinal preference can be ranked from most preferred to least preferred. The model assumes that all preferences are transitive. GMCR defines outcome (states) first and strategies are determined as move between states. It gives analytical insights to understand the problems within which the possible strategic interaction among the decision makers (DMs) can be systematically analyzed in order to ascertain the possible compromise resolutions, or equilibria. Additionally, modeling possible outcomes as 'nodes' and feasible transitions from each node to another as 'links' of a graph structure have following advantages: (i) the graphical representation helps assumed non scientific players (stakeholders) easily understand the structure of the modeled conflict and (ii) unlike a classical set of game theory, the game can easily be interactively operated by assumed players by use of computer based calculation software.

In this model, we discuss the role of different third parties (agents) who can help all the stakeholders to reach an agreement point. Like knowledge provider, can provide the required knowledge, giving more and more scientific information, practically of situation and cost-benefit review to all the players. The arbitrator can introduce the new attractive alternatives, which attracts all of the parties' interests. Simultaneously the facilitator can facilitate the consensus building process and the coping capability of the community to enhance their power to cope up with conflict. In this mode as long as there is a scope to modify the utilities, chances of conflict resolution is high. Ultimately the contingency model looks for the dynamic process of conflict resolution.

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