Conclusion

This thesis contributes to literature spanning across various fields of study including extractivism, ecological distribution conflicts, environmentalism of the poor, and post-growth as well as post-extractivist studies. It has applications, including but not limited to, management of natural resource based conflicts, resource appropriation policies, and post-extractive socioeconomics.

1. Conclusions
Six major conclusions have been arrived at in this thesis originating from chapters 3, 4, 5, 6, 7, and 8.

1.1 From the 100 cases of resistance against mineral extractivism analyzed in Chapter 3, it emerges that these resistance movements in India largely involve socioeconomically marginalized people and communities. As such, they represent a case for an environmentalism of the poor with respect to mineral mining. Among these, adivasi or tribal communities emerge as the largest group involved in defense of ecosystems against mineral extractivism.

1.2 Based upon analysis of the database of conflicts collected and analyzed, sand mining emerges as the leading conflict mineral in India.

1.3 Whereas India in general cannot be identified as a resource periphery at the global level, resource peripheries which subsidize social and environmental costs of the extractive industries can be identified within India; regions that are resource peripheries and are sites of environmental and social justice struggles can identified as exhibiting features of predatory extractivism, where social and environmental burdens are off-set onto local communities and people.

1.4 Resistance movements through their role in identification of, and bringing to the limelight existing grievances of people, and exposing flaws in existing systems of
resource appropriation and management, are instrumental in raising public awareness and eventually in transformation of patterns of extractivism.

1.5 Social and environmental justice movements go beyond identification and revelation of predatory extractivism, but are also an effective tool in resistance against predatory extractivism. In several cases, as observed from cases analyzed in Chapters 3, 4, 5 and 6 these movements have influenced institutional changes in the legislative framework of India.

2. Policy Recommendations

With respect to 7 recurrent issues which have been identified in the case studies with regard to mineral mining in India, seven major recommendations relevant to policy making that have been arrived at. These recommendations are based upon information from field work and derived from the study of court cases, enforced interventions, and rejected bills, and are as follows:

2.1 Extraction: Following the case of Goa, resource caps can be implemented within the MMDRAA, 2015, within the NMEP, 2016, as well as in legislation at state levels.

2.2 Export: Following recommendations in the Common Cause v. Union of India case, limits or caps on quantities exported outside India can be imposed in order to protect against international commodity price fluctuation which often lead to over-exploitation of resources during boom phases. Further imposition of such caps could ensure higher quality and quantities of minerals for the Indian markets, likely incentivizing sufficiency-based extraction.

2.3 Alternative organizations: Following the proposals of tribal communities in Goa, cooperative mining societies under control of local tribal communities. Enabling the formation of mining cooperatives under the control of local communities can help in higher equitable distribution of value of resources.

2.4 Redistribution of value of minerals: Following discussions with mining affected local people as well as the MMDRA bill, 2011, more stringent regulations governing the District Mineral Funds could be implemented, and guidelines on funding activities can be laid down. This would involve laying down specific regulations for constitution of the governing board, and outlines of the activities
which are to receive funding from the DMF. Some of these regulations had been proposed in the MMDR amendment bill of 2011, but were eliminated in the MMDRAA, 2015. Further, the funding of the DMFs can potentially be enhanced.

2.5 Dispossession: Based upon discussions with local displaced persons, and with people who have suffered from reduction or elimination of access to livelihood resource base in mining affected regions, it emerges that dispossession is a serious issue which plagues resource peripheries within India. One important institutional reform in this regard could be the inclusion of usufruct and traditional rights of local communities over land and resources in rehabilitation and resettlement. This proposal was present in the MMDRA bill (2011), but eliminated from the MMDRAA, 2015.

2.6 Transparency and accountability: Mandating and expanding government-funded digital real time information dissemination projects. Implementation of government-funded digital real time information dissemination projects, such as the I3MS system in Odisha, could contribute significantly towards enhancing transparency of mineral extraction and dispatch.

2.7 Social externalities: Based upon experiences from the field it has been identified that extractivism at resource peripheries in India have included many indirect consequences. One prominent example is that of the generation of ‘huttings’ (described in detail in Chapter 5) in the iron ore mining belt of Odisha. This has further had several impacts on the daily life of local community related to introduction of negative impacts perceived by local communities such as entering of local girls/women into prostitution by. Such negative externalities of large-scale extractivism need to be taken into account, and policies introduced in order to ensure housing and accommodation as well as to ensure regulation of indirect social externalities.

3. Way Forward
There is much further scope for expansion on the conclusions of the present thesis. Although the thesis presents a broad study of EDCs across minerals and across regions within India, it is centered on metal mining conflict, with a specific focus on iron ore conflicts. As such, there is scope of utilization of the methodology outlined
in this thesis for the study of various other metallic and non-metallic minerals. Overcoming one of the limitations through considering non-English language documents would potentially reveal a much larger number of conflicts, as well as potentially provide a much more nuanced understanding of EDCs. The current methodology could also be complimented with more sophisticated quantitative methods, such as Social Metabolism Analysis or Material Flow Analysis at the sub-national levels—the state level as well as the district level, dependent upon data availability. The role of gender in EDCs has not been highlighted in this thesis, and such a study could contribute to developing a better understanding of gender roles in EJ movements. This thesis provides a limited analysis of the sociocultural, religious, and traditional causes of social resistance by non-mainstream communities. A deeper understanding of the multiple languages of valuation employed by these communities and peoples, the cultural and religious basis of resistance movements, and traditional human-ecosystem linkages exhibited can significantly contribute to the field of post-growth economics, anthropology, human geography and studies of subaltern resistance movements. This could have potential implications for management of current environmental and ecological degradation issues at the global level such as climate change, biodiversity conservation, sufficiency in food and water systems, development studies, poverty elimination etc.

There is also scope of expanding the findings of this thesis to conceptualize socioeconomic systems alternative from the existing system based on ever increasing economic growth, which has significantly contributed to, and is likely to contribute further to existing global ecological problems. Further study of ecological distribution conflicts, subaltern social and environmental justice movements, and allied and associated networks also has implications in the studies of democratic inclusion of marginalized communities and rights of indigenous peoples. Finally, further study of such social and environmental justice movements, and the solutions that these movements themselves offer, have a potential to achieve environmental sustainability in a socially, economically and politically inclusive bottom-up manner, rather than technocratic, exclusive, capital-heavy, centralized, and wealth and power based top-down approaches to environmental preservation and conservation.