



# Conflicts in mangrove protected areas through the actor-centred power framework - Insights from China

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## ABSTRACT

Mangroves as a critical ecosystem in tropical and subtropical intertidal zones are undergoing accelerated degradation. Efforts to establish protected areas have been credited as a plausible way to protect mangroves. However, the rapid expansion of protected areas has severely eroded communities' livelihoods and power balance with local authorities, creating tensions between mangrove conservation and local aquaculture development. Based on the actor-centered power framework, we analyzed local residents' reactions and resistance to the highly politicized policies in the K Mangrove National Nature Reserve in China. By revealing power dynamics hidden in multi-actor conflicts under an authoritarian regime, our research sheds new light on how conflicts arise and escalate through the strategic use of power resources and imbalanced power configuration during structural change and policy implementation. Power relations between groups of actors are reshaped from tacit complicity to opposition between the policy coalition and the interest expression coalition. The deprivation by local authorities of community-owned soft power resources significantly exacerbates the power asymmetry between coalitions and triggers the adoption of stronger power strategies by the community and the escalation of resistance intensity. Our research has important implications for better conflict management and coastal resource management under authoritarianism.

## 1. Introduction

Mangroves function as highly productive and biologically critical ecosystems (Jayanthi et al., 2018) and play a vital role in coastal defense, erosion control, fisheries enhancement, habitat provision, pollutant filtration, and carbon sequestration (FAO, 2007; Barbier et al., 2011; Kathiresan and Rajendran, 2005; Thampanya et al., 2006; Hutchison et al., 2014; Wang et al., 2010; Alongi, 2014). Despite their ecological significance, mangrove habitats are currently confronted with an array of anthropogenic threats, including land use conversion to aquaculture and agriculture, overexploitation of timber and fisheries, and urbanization and infrastructure development (Alongi, 2002; Corcoran et al., 2007; Garcia et al., 2014; Giri et al., 2015; Nguyen et al., 2016; Chowdhury et al., 2017). The extensive aquaculture production, particularly shrimp farming, is considered among the most destructive practices and poses a major threat to the integrity of mangrove ecosystems (Nurkin, 1994; Primavera, 2000; Islam and Wahab, 2005; McLeod and Rodney, 2006; Thu and Populus, 2007; Nguyen et al., 2013; Thomas et al., 2017; de Lacerda et al., 2019; Akber et al., 2020), causing

mangrove degradation, eutrophication, biota contamination, salinization, sedimentation, alien species invasion, land and food insecurity, as well as marginalization and displacement of coastal communities (Bailey, 1988; Primavera, 1991, 1993, 1997, 2006; Dewalt et al., 1996; Dierberg and Kiattisimkul, 1996; Diana, 2009; De Silva, 2012; Hossain et al., 2013; Taher et al., 2023).

Globally, about one-third of mangrove area has been lost since the 1950s (Alongi, 2002; Polidoro et al., 2010), with a loss of 20%–35% from 1980 to 2000 (Valiela et al., 2001; FAO, 2007) and 2.1%–3.4% from 1996 to 2020 (Goldberg et al., 2020; Bunting et al., 2022). Prior to 2000, the loss rate was 1%–2% per year (Valiela et al., 2001; FAO, 2003), decreasing to 0.16%–0.39% per year from 2000 to 2012 (Hamilton and Casey, 2016). Aquaculture contributes to 52% of global mangrove loss and 58% in Asia, with shrimp farming alone accounting for 38% and 12%–41% of mangrove deforestation, respectively (Valiela et al., 2001; Giri et al., 2008). The world would be deprived of the ecosystem functions provided by mangroves within this century if the alarming depletion continues (Duke et al., 2007).

In order to curb the trend of degradation and deforestation, efforts

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have been made for mangrove conservation. Almost 42% of the world's mangroves are already in protected areas (GMA, 2022). 12.98% of seas are conserved and 142 conservation objectives have been addressed in 326 marine protected areas in China (Bohorquez et al., 2021). However, given the dynamic coastal environment (Marques and Cerqueira Neto, 2021), complex processes, uncertain understandings, multiple threats, jurisdictions and scales, and stakeholders and perspectives in coastal management (Coffey and O'Toole, 2012), intractable conflicts may arise between interest groups and have ongoing negative impacts on biodiversity, human livelihoods, and well-being (Redpath et al., 2013). It is therefore imperative to understand how natural resource conflicts arise and what shapes the deteriorating confrontations (Harrison and Loring, 2020).

Miscellaneous types of multi-level conflicts, characterized by distrust, disharmony, injustice, marginalization, exclusion, and violence, have been increasingly observed worldwide (Hellström, 2001; Bennett et al., 2001; Vedeld et al., 2012; Satyal Pravat and Humphreys, 2013; Bond, 2014; Winkel et al., 2015; Warner, 2017; Nousiainen and Mola-Yudego, 2022). It is recognized that conflicts are driven by a bundle of historical, socio-political, cultural, institutional, economic, ecological and environmental factors (Young et al., 2010; Kröger, 2013; Murunga et al., 2021): (i) A plurality of conflicts over natural resources are directly engendered by tenure controversies (Bose, 2013; Yasmi et al., 2013), tenure insecurity (Gmür and Haller, 2023), and restricted availability and access (Gutiérrez-Zamora and Hernández Estrada, 2020; Nousiainen and Mola-Yudego, 2022). (ii) Competing interests, overlapping leadership, and lack of coordination among bureaucracies with disparate formal objectives and informal interests have been identified as another source of governance confusion and management inefficiency (Primavera, 2000; Khan and Giessen, 2021; Garcia and Burns, 2022; Wang et al., 2023). (iii) Beyond the tangible and physical incompatibilities, conflicts are always linked to deeper normative or cognitive divergences in ideas, knowledge, understanding, values, perceptions, emotions, rationalities, and priorities (Young et al., 2010; Buijs and Lawrence, 2013; Loring and Hinzman, 2018). Conflicting beliefs, visions, and ideological positions may hamper the implementation of policies (Andersson et al., 2022; Wang et al., 2023) and knowledge co-production (D'Amato et al., 2022). Among all the potential factors, (iv) institutional change such as decentralization and devolution reforms (de Koning et al., 2008; Ravikumar et al., 2013; Muok et al., 2021), and institutional path dependence and neoliberal restructuring (Punjabi and Johnson, 2019), as well as institutional failures such as weak enforcement, contested regime legitimacy, and lack of transparency and accountability, act as fundamental causes of conflict over natural resource management (NRM) (Ostrom, 1990; Bennett et al., 2001; Fischer et al., 2020; Juniyanti et al., 2021; Kimengsi et al., 2022). These are prone to trigger inequality or injustice among stakeholders (Bennett et al., 2001), tenure disputes (Juniyanti et al., 2021), and competing claims to authority (Muok et al., 2021).

Despite extensive scrutiny of the causes of conflict emergence, the prevailing static factors above might fall short of explaining the dynamic escalation of conflicts featured by an increase in intensity, scale and the use of coercive inducements (Wall and Callister, 1995; Jehn, 1997; Kriesberg, 1998). Conflict is inherently a series of dynamic processes and can be divided into stages according to the conflict issues, behavioral norms, and cognitions and attitudes, not only for inter-individual social conflicts (Pondy, 1967; Rubin et al., 1994; Glasl, 1999, 2004) but also for multi-actor NRM conflicts (Yasmi et al., 2006). However, compared to the disproportionate attention to the causes of conflict, few studies have examined the causes of conflict escalation from a dynamic perspective, such as recent research ascribing it to the politicization and inaction of local authorities (Konrad and Levine, 2021), and (the neglect of) diversified interests (Yusran et al., 2017; Nousiainen and Mola-Yudego, 2022). An exception is Turner et al. (2020), who argue for the interplay between power relations and conflict manipulation, where a change in power relations from unilateral to synergistic or

interdependent can be used by actors to actively stage conflicts through resource mobilization; however, they still fail to recognize the power asymmetry between actors and its link to conflict escalation. Overall, the existing relevance of conflict emergence to power relations or power struggles notwithstanding (e.g., Krott, 2005; Boonstra and Frouws, 2005), the pivotal role of power as a basic element of social bargaining processes (Krott, 2005), specifically power dynamics and power asymmetry, in driving conflict escalation remains greatly undervalued (Satyal Pravat and Humphreys, 2013; Stepanova, 2015).

To address the aforementioned research gaps, we formulate two research questions to disentangle the logic inherent in the conflict escalation from the perspective of power dynamics: (i) How do actors strategically mobilize resources to alter the existing power relations, and how do other actors react to the new power relations? (ii) How do power shifts and power asymmetry drive conflict's emergence and escalation? We build the power analyses of multiple actors on the actor-centered power (ACP) framework. Two time-frames were deployed to unpack the actors' power dynamics underneath the visible conflicts: the establishment and upgrade of the K Mangrove National Nature Reserve (KMNNR), and the implementation of the "Withdrawal from Aquaculture for Wetland Restoration" (*tuiyang huanshi*) Project (WAWRP).

The remainder of this paper is structured as follows: an overview of the actor-centered power framework is provided in Section 2, followed by a brief introduction to the study area, materials, and methods in Section 3. In Section 4, we interpret our main findings on the mechanism of conflict escalation driven by power asymmetry, and then answer the research questions and provide a detailed discussion in Section 5. Concluding remarks are then presented.

## 2. Theoretical framework

We draw on insights from the ACP framework of Krott et al. (2014) to uncover the power process behind the social conflicts in a marine protected area. This framework provides a beneficial thread for analyzing power dynamics between individuals or groups within a social system and shows good compatibility in a wide range of fields at national and local levels, such as forestry policy change (Burns et al., 2017), forest tenure reform (Dobšinská et al., 2020), forest governance (Juerges et al., 2020; Başkent, 2022; Garcia and Burns, 2022), forest management (Scheba and Mustalahti, 2015; Schusser et al., 2016; Marques et al., 2020), community forestry (Schusser, 2013; Schusser et al., 2015), land use and tenure conflict (Susanti and Maryudi, 2016; Prabowo et al., 2017; Juniyanti et al., 2021; Maryudi et al., 2016), and project implementation (Ba et al., 2020).

Actor-centered power is "a social relationship in which actor A alters the behaviors of actor B without recognizing B's will" (Krott et al., 2014), which is inherently the capability of a potentate to impose its will on subordinates and directly influence their decisions and actions to its own advantage (Brockhaus et al., 2014; Dewulf and Elbers, 2018). Will represents the goal and interest of an actor, which is often hidden in the actor's action and difficult to reveal directly and formally (Schusser, 2013; Prabowo et al., 2016). Power is invisible but empirically observable, and resources are only transformed into power if an actor intentionally mobilizes them to change the behavior of other actors (Krott, 2005; Krott et al., 2014). Power source, also known as power capability (Rahman et al., 2016; Rahman and Giessen, 2017), power resource or power strategy (Juerges et al., 2020), explains how actors exercise their power. The power strategies an actor adopts depend on whether and to what extent the actor's will is realized. ACP framework distinguishes three core elements of power: coercion, (dis-)incentives, and dominant information. (i) Coercion refers to altering behavior through real force, the threat of force, or even the bluff of non-existent force (Juerges et al., 2020). Coercion in practice embodies organized coercion with a top-down or command-and-control approach (Maryudi, 2011), such as legal sanctions and the removal of resource users' rights (Rahman et al., 2016), and unorganized coercion, such as physical violence, evasion of

other actors' control, and illegal harvesting (Juerges et al., 2020). (ii) (Dis-)incentives refer to altering behavior by (dis-)advantage. (Dis-)incentives can be material, such as financial subsidies and penalties, and the (non-)provision of machines and natural resources, or immaterial, such as social (dis-)approval, public welfare, and moral constraints (Juerges et al., 2020; Juniyaniti et al., 2021). (iii) Dominant information refers to altering behavior by unverified information. It means that the validity and quality of information cannot be checked by the subordinate owing to a lack of time, means, knowledge, or willingness (Rahman and Giessen, 2017; Baqkent, 2022). Dominant information takes many forms such as expert knowledge, cultural norms, and political ideologies (Rahman et al., 2016; Juerges et al., 2020).

An actor's power is not static (Prabowo et al., 2016, 2017; Rahman et al., 2016). Social interaction is reshaped over time since the change in policy or a specific actor's behavior will be echoed by other actors (Prabowo et al., 2016). An actor's identity thus can correspondingly be multiple and dynamic across phases, varying with the interaction scenarios and interactive objects (Juniyaniti et al., 2021).

The ACP framework treats power as *domination* or *power over* (i.e., the capacity to make others do something that they would not otherwise do), rather than power as *property* or *power to* (i.e., the capacity to do something, which is not recommended as power but rather influence, due to its dependence on the will of the subordinate) (Krott et al., 2014). This helps us understand why and how actors exercise power. It is noteworthy that the structures (i.e., institutional settings, including policies, regulations, rules and norms, discourses and ideologies, see Brockhaus et al. (2014), and social networks, see Juniyaniti et al. (2021)) are not directly treated as power itself but rather as a source of an actor's power (Krott et al., 2014; Prabowo et al., 2016). Although structures are not completely discounted, the increasingly recognized actor-structure dichotomy in power analyses (Wibowo and Giessen, 2015; Juniyaniti et al., 2021; Kashwan et al., 2019; Kimengsi et al., 2022) might impede our holistic understanding of power given the susceptibility of power relations to political structures (Wibowo and Giessen, 2015; Maryudi et al., 2016; Prabowo et al., 2017). Additional attention has therefore been paid to historical events, bureaucratic structures, exogenous shocks, and social networks that affect power dynamics to overcome potential oversights and biased examination.

### 3. Methodology

#### 3.1. Study area

KMNNR is located on the estuary of south-east China, with three villages nearby. KMNNR is a wetland-based nature reserve with mangroves, wetland waterfowl, and high-quality aquatic germplasm resources as its main conservation objects, possessing the most diverse and well-preserved mangrove natural communities north of the Tropic of Cancer in China. The total area of the reserve is 2360 ha, including 700 ha of the core zone with strict conservation where no anthropogenic activities are allowed except for scientific research, 460 ha of the buffer zone where limited activities such as natural resource education are allowed, and 1200 ha of the experimental zone with local residents (Document No. 3). Among these, the mangrove beach area is approximately 1300 ha with dominant tree species including *Kandelia obovata*, *Bruguiera gymnorrhiza*, *Aegiceras corniculatum*, *Avicennia marina*, *Acanthus ilicifolius* L (Document No. 3).

Village X, divided into three natural villages, is located in the bay near the estuary and endowed with the largest mangrove area and most species. Village X has 14,500 mu<sup>1</sup> of cultivated land, 19,900 mu of mountainous land, and 23,000 mu of mudflat (Document No. 5). Folk beliefs such as the God of Earth and "Khai-Chiang Sing-ong" (*kaizhang shengwang*) prevail, as evidenced by the wide existence of historical

ancestral halls, ancient houses, and temples. There are a total of 1735 households and 7535 residents in Village X, divided into 19 village groups, with major surnames including Wu, Wang, Liao, and Chen (Document No. 5). There are 4354 (57.78%) young and middle-aged laborers, of which 1180 are migrant workers mainly engaged in business, labor, and aquaculture; the remaining 2/3 are engaged in collective aquaculture, asparagus (*Asparagus officinalis* L.) planting, business, and labor, and 1/3 go to the sea for mangrove conservation (*xiahai hulin*) with an hourly wage of RMB<sup>2</sup> 30 (Document No. 5). In 2020, the recurring income of the village collective economy was RMB 800,000 and the net income per capita was RMB 18,000 (Document No. 6). Village X has a long history of aquaculture, with the main seafood products including razor clams (*Sinonovacula constricta*), mud clams (*Tegillarca granosa*), saw-edge green crabs (*Scylla serrata*), shrimp, eels (*Anguillidae*), channeled whelks (*Busycotypus canaliculatus*), Chinese black sleepers (*Bostrichthys sinensis* L.), and paphia (*Paphia papilionacea*) (Document No. 5). The villagers, particularly a group of sea catchers, have accumulated rich experience in catching (*taoxiaohai*), moving, and cleaning razor clam fry and other seafood.

Village X villagers have long planted mangroves to protect their coastal farmland from seawater erosion. In the early 19th century, Village X was frequently plagued by land salinization and storms, and the reclaimed farmland could not be cultivated. The villagers built a seawall, which often collapsed because of its weak storm resistance. During the Qing Dynasty's Daoguang period (1821–1850), a villager nicknamed "Red Tiger" accidentally found trees growing in seawater while doing business in Guangdong and Hainan Provinces. The seeds were brought back and planted, with a wish at the Temple of God of Earth. The tenacity of the mangrove tree attracted widespread mangrove planting by villagers, which soon led to the formation and flourishing of the shelterbelt in Village X, commonly known as the "Great Forest" (*dalin*). After the founding of New China, the villagers established village rules and regulations for the mangroves: (i) a management team consisting of four villagers surnamed Wu was established, with 360 tasks throughout the year, each worth RMB 0.5, to be settled at the year's end; (ii) anyone who cut down the mangroves (regardless of the purpose) would be fined RMB 400 per hundred jin,<sup>3</sup> with a penalty of five days' replanting; (iii) the use of mangroves was subject to approval if required for national aquaculture farms. The mangroves were primarily regulated by the village management team and expanded over several generations to five contiguous communities covering thousands of hectares, which played an important role in wind protection and seawall reinforcement. The spontaneous management practices developed by villagers based on their desire for ecological conservation have laid the foundation for mangrove conservation.

#### 3.2. Materials and methods

This is a single case study with a qualitative research design. Mixed approaches, including semi-structured interviews, participatory observation, and secondary data collection, were used for triangulation (Marques and Cerqueira Neto, 2021; Maryudi et al., 2016). The key actors in conservation management were identified using the snowballing method (Murunga et al., 2021) to avoid ingroup bias. Our research team went to the KMNNR for a month in November 2019 and October 2020, respectively, and for a week in May 2023. In-depth individual interviews ( $n = 45$ ) were conducted (Table 1, Table A.1 in Appendix A). By living with local residents, we captured the actors' values and beliefs. Numerous formal and informal documents were collected during the fieldwork, including the County Annals, the County Statistical Yearbook, KMNNR plans and reports, articles from the KMNNR's WeChat official account, the archives and plans of Village X, as

<sup>1</sup> 1 mu = 0.067 ha.

<sup>2</sup> RMB 1 = USD 0.144 on May 15, 2023.

<sup>3</sup> 1 jin = 0.5 kg.

**Table 1**  
Interview information.

Sector	Agency/Organization	Number	Time period	Content
Community	Village committee, Elders Association, folklore council, fishermen groups, growers, aquaculturists, and local residents	22	October 2020, May 2023	History of Village X, production and living conditions, natural resource use, knowledge of the mangrove protected area, and interaction with government
Local government	Provincial Forestry Bureau, Provincial Wildlife/Wetland Protection Center, County Border Defense Force	13	November 2019, October 2020	Structure of government departments, division of power and responsibilities, local development plan, and policy implementation
KMNRR Management Bureau	Resource Protection Department, Planning and Finance Project Department, Research and Education Center	6	December 2019, October 2020	Ecological, social, and economic conditions of the reserve, interaction with local government, relationship with the community, and difficulties of work
Scientific institution	Universities, Bird Watching Association, NGOs, foundations	4	November–December 2019	Perceptions of local environmental protection and participation in the management of the reserve

well as copies of petition letters from the Elders Association and responses from local authorities (Table A.2 in Appendix A).

All interviews were recorded and transcribed into text for coding and analysis. The transcripts were uploaded into the NVivo 11 software, which is widely used for qualitative data analysis. Before full coding, the opening coding approach was used to identify key patterns. The collected data were coded using an inductive code structure. Initial codes were based on several main themes developed during the fieldwork, such as the KMNRR's history, natural resource use in Village X, and interactions between the local government and the community. Major sub-themes were adapted from the three power elements in the ACP framework. Phrases and short sentences with similar meanings were merged and repetitions were deleted. After a review of the sub-themes, the initial themes, sub-themes, and codes were cross-checked, and subsequently the final hierarchical structure was obtained after iterative discussion among the authors.

#### 4. The evolution of conflict: progressive imbalance of power relations

Actors' will and power resources were used to decompose the power dynamics behind social conflicts and the restructuring of power relations through changes in societal rules, discourses or settings, and actors' entry and exit. The actor who is not powerful enough to alter other actors' behavior, and whose behavior is not altered by other actors, is not included in our conflict storylines.

##### 4.1. Conflict latency (1992–2012): tacit complicity

The county-level mangrove nature reserve of 170 ha was established in January 1992. In July 1997, it was upgraded to a provincial-level reserve of 1300 ha with the approval of the provincial government, and in June 2003, it was officially promoted to a national-level reserve of 2360 ha with the approval of the State Council,<sup>4</sup> accompanied by the establishment of the KMNRR Management Bureau, which serves as the county government's dispatched agent for mangrove conservation, wetland restoration, and regulation of local community's farming and aquaculture practices, regulated by both the county government and the provincial forestry bureau. However, the reserve's continuous expansion stemmed entirely from the forcible occupation without consultation or compensation (II1. Coercion), as well as the misrepresentation of the area through a nuanced change in discourse (II2. Dominant information). The Petition Report (Complaint) on the Request for Safeguarding the Establishment of the Mangrove Reserve by the State and Treating the Interests of the Masses Correctly (Document No. 19, dated 25 August 2019), written by the Elders Association, states that more than 2000 mu of mangrove core areas and more than 7000 mu of mudflats used for

aquaculture in Village X were confiscated in 1992 (II1. Coercion).

Seeing the good prospects of gain, the county mayor, the county party secretary, and the deputy county mayor organized themselves together with the village chief, the village party secretary, and the accountant to put a stamp, without the villagers' knowledge. They described the mangroves as K mangroves, which are the mangroves of Village X... Where do more than 30,000 mu [of mangroves] come from? The mountain, the river and the land at the foot of the mountain are all demarcated [into the reserve]. (Interview No. 42)

Production materials such as fertilizer and cement, which used to be allocated by the county forestry bureau to the village committee and production brigades (instead of households) to support production and construction in Village X, had been interrupted since the establishment of the KMNRR Management Bureau (II3. Disincentive). There was speculation that sub-national governments had transferred large sums of conservation compensation funds to other construction and investment projects (II4. Coercion) under the guise of mangrove conservation (II5. Dominant information), leading to villager discontent.

All the money given by the central government has been encroached [by local governments], eaten up by the provincial [government] and eaten up by the municipal [government]. At least [RMB] 1.6 billion has been eaten up. (Interview No. 43)

Unexpectedly, the unique mangrove landscape attracted many visitors. Motivated by this potentially lucrative opportunity, ambitious local villagers risked official fines (II6. Disincentives) by converting private boats into tourist boats with railings and seats to take visitors on sightseeing tours for a fee of RMB 200–600 per trip (II7. Coercion). Such spontaneous behavior, such as ponding, seafood catching, and operating private cruises (II7. Coercion) was legally prohibited but practically condoned by the KMNRR Management Bureau. Tacit complicity thus occurred in which the reserve management bureau acquiesced to the efforts of the local community to exercise its rights to subsistence and development, disregarding the resulting disturbance to habitats and the delivery of mangrove ecosystem services. The mild resistance by the community instead became a key weight for concealing conflicts.

In our village, people have made a living by aquaculture for a long time. We (the KMNRR Management Bureau) used to turn a blind eye to local residents' traditional livelihoods, such as catching seafood from the mudflats, as long as no conflicts arose. (Interview No. 18)

From 2005 to 2010, some non-governmental organizations (NGOs) and research institutions were mobilized by the KMNRR Management Bureau to provide ecological knowledge, advanced management concepts and expertise, and technical and financial support for biodiversity monitoring. The Mai Po Wetland Nature Reserve in Hong Kong was invited to collaborate on the regulation of anthropogenic activities, the construction of sustainable ecological aquaculture, and the ecological assessment of wetlands (II8. Incentive). The World Wildlife Fund (WWF) and the Hongkong and Shanghai Banking Corporation Limited (HSBC)

<sup>4</sup> See Wang et al. (2023) for details of the administrative procedure of the establishment and adjustment of protected areas in China.

provided favorable financial support to the reserve (II8. Incentive), greatly easing the budgetary constraints of the KMNNR Management Bureau. The county created a new brand of “Mangrove+” and successfully applied for origin certification for several special aquaculture seafood products, such as “County Saw-edge Green Crab,” “Village X Mud Clam,” and “K Oyster” (II9. Incentive). The brand effect drove a significant increase in villagers' income. The county government also organized three trips to Hong Kong and Zhejiang Province for aquaculture representatives to attend study tours and training sessions (II9. Incentive), driving the local community from a traditional and crude aquaculture model to a branded and standardized one.

In addition to external social resources and networks, the county government established the Aquaculture Association with the assistance of the KMNNR Management Bureau, which aimed at providing advanced aquaculture techniques and experience for local aquaculturists (II9. Incentives). The KMNNR Management Bureau also established the Joint Conservation Committee to implement effective community co-management<sup>5</sup> through biennial negotiations with stakeholders from village collectives, county government, and other departments (III0. Incentives). In addition, the county government promoted a pilot project on pollution-free aquaculture, calling for using low toxicity and low residue pesticides, with cash subsidies for the extra cost of pesticides (II9. Incentives). All the efforts above helped the local government and the reserve management bureau to translate their will into power through the benefit-sharing mechanism, which could not only encourage local villagers' wider adoption of new techs and eco-friendly aquaculture behaviors, and stimulate the growth of community incomes, but also reverse the community's further complaints and reports. Although the previous discontent caused by the villagers' forcible exclusion from resource access and use, the deliberate legitimization of mangrove conservation, the suspension of material subsidies, and local elitism and corruption remained (which was only overshadowed), the villagers' further appeals were deflected by the tangible gains in income, knowledge, and skills that they received. The local authority's misbehavior thus gained the community's tolerance and connivance, lacking incentives to break this tacit complicity (Fig. 1).

The county government remained the most powerful actor, equipped with the most multidimensional and intensive power resources (Table 2). The county forestry bureau, the NGOs, and the community were the weakest actors owing to their structurally single and quantitatively limited power resources (Table 2). There was a moderate power imbalance in which the community adopted coercive power strategies in response to the local authorities' coercion and dominant information to grab interests, and their incentive efforts to maintain tacit complicity. The conflict has so far been constructive and controllable, where the actors are willing to make concessions and accept compensation for losses in the form of tangible gains. Rather than seriously disrupting the social order, the conflict's limited scale allows the local authorities to keep abreast of community demands and facilitates the timely alleviation of conflict before escalation.

4.2. Conflict intensification (post-2012): the opposition between the policy coalition and the interest expression coalition

“Ecological civilization” as an imaginary and politicized narrative or discourse was first incorporated into China's general developmental blueprint (i.e., the Five-Sphere Integrated Plan, or *wuwei yiti*) at the 18th National Congress of the Communist Party of China (CPC) in 2012. At the Third Plenum of the 18th CPC Central Committee in 2013, environmental performance was officially included in the cadre evaluation system (III1. Incentive), a lifelong responsibility system for bio-environment damage (*shengtai huanjing sunhai zeren zhongshen*

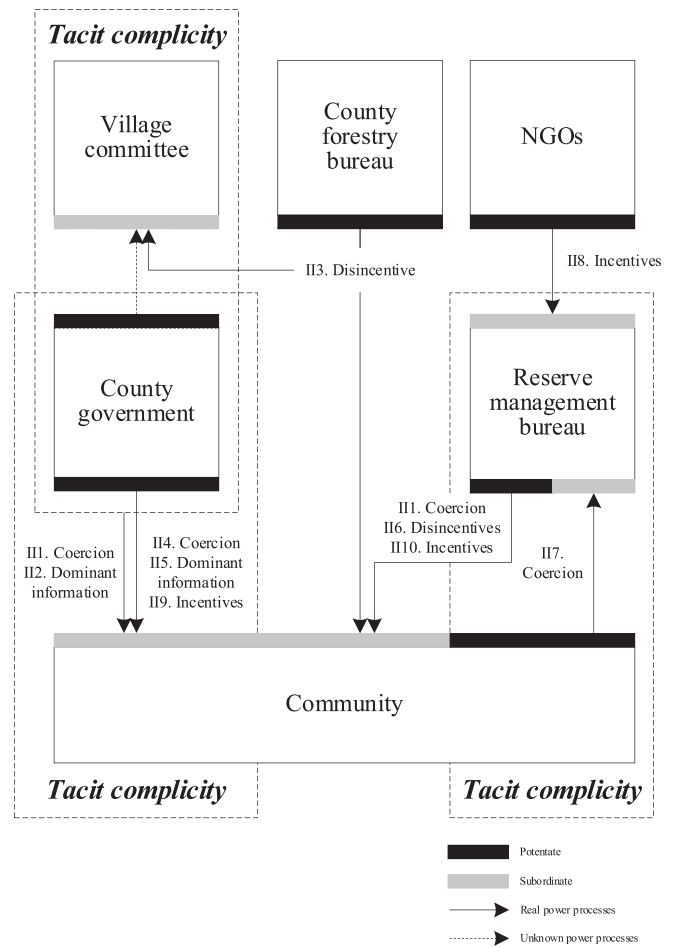


Fig. 1. Power landscape during conflict latency (1992–2012).

*zhuijiuzhi*) was established (III2. Disincentive), and officials were stipulated to receive audits on natural resources when leaving office (*ziranziyuan zichan liren shenji*) (III2. Disincentive), to further improve incentives and constraints for local officials in resource and environmental governance. The audits were piloted in 10 provinces in 2014. During the third batch of the first round of the Central Eco-Environmental Protection Inspection (*zhongyang shengtai huanjing baohu ducha*) in 2017, four officials from the county government and the KMNNR Management Bureau, along with two township cadres, were given admonishments, party warnings, and dismissals (III3. Coercion), since the 9085 mu of historical aquaculture ponds in the reserve had not been restored to wetlands and 767.98 mu of new illegal aquaculture area had been added to the reserve since 2013. Seven departments subsequently launched the Green Shield Special Action (*lvduan zhuanxiang xingdong*) focused on punishing illegal activities such as mining, tourism, and hydropower development within national nature reserves (III3. Coercion). Deterred by this high-pressure campaign-style inspection, the county government initiated the three-year WAWRP in June 2019, covering a total area of 7457.6 mu, including 2319.53 mu in Village X. WAWRP aimed at the withdraw from aquaculture in the core and buffer zones within the ecological red line of the reserve, and claimed that any new aquaculture area and supporting facilities added thereafter would be forcibly removed (III4. Coercion) and that officials and cadres who condoned the (sub-)contracting of collectively owned aquaculture ponds would be subject to party and political disciplinary sanctions, despite agreeing with the confirmed positive impact of ecological aquaculture on migratory bird conservation in terms of food and habitat provision.

<sup>5</sup> This is affectionately known to local villagers as “small hands pulling big hands.”

**Table 2**  
Distribution of relative power resources among actors and coalitions in the evolution of conflict.

Coalition	Actor	Conflict latency					Conflict intensification				
		C	I	D	DI	Total	C	I	D	DI	Total
Policy coalition	Central government	–	–	–	–	–	+++	+++	+++	0	+++
	County/Town government	+++	+++	0	+++	+++	+++	++	+	+	++
	County forestry bureau	0	0	++	0	+	–	–	–	–	–
	Reserve management bureau	+++	++	+	0	++	+++	+++	++	++	+++
	Village committee	+++	0	0	+++	++	+++	++	0	+++	++
	NGOs	0	++	0	0	+	–	–	–	–	–
	Total	++	++	+	+	++	+++	+++	++	++	+++
Interest expression coalition	Elders Association	–	–	–	–	–	+++	++	0	++	++
	Community/Production teams	++	0	0	0	+	+++	0	0	0	+
	Total	+	0	0	0	+	++	+	0	+	+

Note: + (Low), ++ (Medium), +++ (Strong), 0 (Almost none), – (Not available); C = Coercion, I = Incentives, D = Disincentives, DI = Dominant information. The total power of the coalition depends not only on the intensity and variety of power elements of each actor, but also on the number of actors in the coalition. Classifying actors into coalitions during the conflict intensification can better identify power gaps and power asymmetries between coalitions.

There are lots of birds... People do not practice aquaculture in winter. At low tide, the benthic organisms on the bottom of the aquaculture ponds are exposed for birds to eat. If the government wants to protect birds here, we think it is a good way to encourage ecological friendly aquaculture rather than simply ban it. (Interview No. 23)

The KMNNR Management Bureau, the chief executor of the rectification, acquired county government funds and signed agreements with the village committees involved. The town governments and the village committees were responsible for persuading all aquaculturists associated with the rectification to sign an assignment contract to lease their aquaculture ponds to the county government for restoration with an average rental of RMB 6000 per mu and an increase in health insurance from RMB 70 to RMB 280 per month (III5. Incentives), compared to the general compensation for young crops (*qingmiaofei*) of about RMB 1000. In case of disputes, law enforcement agencies are assigned by the corresponding departments (such as the Fisheries Bureau and the Natural Resources Bureau), depending on the type of dispute, to enforce the law. The County Border Defense Force cooperates with the enforcement, forming a vertical and horizontal management pattern.

I have to keep my “black gauze cap” (post) first. Only if my post of director [of the KMNNR Management Bureau] is preserved will I have the motivation to continue my work. Then it means that all [local aquaculturists] must be rectified, and there is no room for negotiation. (Interview No. 23)

WAWRP has significantly sabotaged local residents' livelihoods. The existing compensation scheme without livelihood conversion and resettlement means, compared to the stable high incomes from aquaculture,<sup>6</sup> was far from sufficient to cover the huge losses caused by WAWRP. Previous training and brand management organized by the county government unanticipatedly raised the opportunity cost of WAWRP, which made villagers even more reluctant to abandon their aquaculture ponds. Moreover, forcible withdrawal would inevitably fragment the aquaculture industry chain from packaging to processing to transportation, which had integrated a large number of local residents and generated considerable employment and income for the community. In particular, the outbreak of the COVID-19 pandemic at the end of 2019 and the resulting strict blockade severely hampered local seafood product marketing and reduced the returns of aquaculturists, further deteriorating local residents' well-being. Most villagers who withdrew from aquaculture had to migrate for work, which led to the fundamental severance of long-standing indigenous social networks and the irreversible loss of the main body of conservation, diluting the community's

will to conserve. Members of the Elders Association underlined that their interests should never be compromised, despite the importance of mangrove conservation.

Yes, mangroves still protect the banks, and they are beneficial for air condition. But our interests are more important. (Interview No. 25)

The Elders Association is composed of over-sixty-year-old elders with good reputations and prestige, regulated by the town government. It represents the will of both local villagers and the village committee, nominally monitoring the village finances at the top, and virtually cooperating more with the village committee in dispute mediation at the bottom. Before the entry of the Elders Association into the conflict storyline, local villagers could only pose limited resistance by taking advantage of the village's geographical proximity to the coast to circumvent the KMNNR Management Bureau's regulation of clandestine aquaculture. However, most villagers ultimately opted to compromise because of village cadres' day-to-day lobbying and persuasion. The KMNNR Management Bureau promised that “*the ponds would be returned when the planning is adjusted*” (Interview No. 39, III6. Dominant information). Although this uncertain or misleading commitment could not be verified, it won the trust of some villagers, who were embedded in the Differential Mode of Association (*chaxugeju*) of rural acquaintance society.<sup>7</sup> Some less compliant villagers even received warnings or threats from village cadres (III7. Coercion & Dominant information), such as “*If you do not hand over your aquaculture ponds to the authority, the consequences could be even worse,*” and “*Aren't you afraid to die? You don't even want your salary.*” (Interview No. 42).

To strengthen reserve control, special staff and drones were equipped to conduct daily patrols (III8. Coercion). In 2017, the KMNNR Management Bureau secured central special funds for the installation of infrared facilities to conduct high-density monitoring at regular intervals (III8. Coercion). However, *Sporobolus alterniflorus* L. began to grow wild around the ponds, which inevitably went barren and collapsed. Some villagers were concerned that even if the aquaculture ponds were returned after years, the maintenance costs would be prohibitive (cleaning fee of RMB 2000–3000 per mu), and the existing compensation scheme did not specify who would pay for maintenance. But more importantly, strict access restrictions further eliminated the possibility of mild resistance from villagers through private operations and clandestine aquaculture.

Stimulated by severely eroded interest and ever-shrinking power resources, one member of the Elders Association named L, a retired teacher, first drafted the Report on the Request for Safeguarding the Establishment of the Mangrove Reserve by the State and Treating the Interests of the Masses Correctly in 2012. On 11 November 2014, the

<sup>6</sup> For example, one mu of razor clam fries at 20 dan, each dan worth RMB 2000, one mu of razor clam fries worth RMB 40,000 (1 dan = 50 kg).

<sup>7</sup> See Fei (1992) for details.

joint letter was refined based on the draft report, citing the view that “no one has the right to deprive peasants of their land property,” as pointed out by then-Premier Wen Jiabao at the Central Rural Work Conference on 28 December 2011. It required the local authorities to return the management and use of the mangrove core area to the villagers, or to balance the interests of the state, the collective, and the individual, and to implement financial compensation. Through his social network, L mobilized 13 other members of the Elders Association, one of whom had previously served as a village chief, to become liaison representatives, the “core force” of interest expression of peasants group. They then held meetings with 19 leaders of the production squad (*shengchan xiaodui*),<sup>8</sup> who went door-to-door to mobilize villagers to sign and fingerprint through inflammatory persuasion and enticing commitment (III9. Incentive & Dominant information), such as “*You can choose not to sign; but in the future, if successful, no dividends will be distributed to you.*” (Interview No. 44) It took about 20 days to collect the signatures and fingerprints of 577 households, including some migrant workers who intentionally returned. The joint letter was successively sent to the municipal and provincial public complaints and proposals bureaus, the county people's congress office, and the provincial government (III10. Coercion) and received generally negative and ambiguous replies (Fig. 2). Among them, one document clearly stated that,

After mediation led by the town fishery station, together with the village task force and the village committee, as well as immediate consultation with the county marine bureau, the mangrove management bureau and other relevant departments for general knowledge, it is concluded that the mangrove wetland nature reserve is a national wetland reserve and its sea and mudflats are all national resources. The sea and mudflats mentioned in the petition (joint letter) have been entrusted by the county people's government to the town and X Village Committee for management under specific historical conditions, and are not owned by individuals. (Document No. 15, dated 27 January 2015)

The construction of the indigenous villagers as illegal trespassers became a dominant narrative framework employed by the local authorities. Sensing the ineffectiveness of sending letters, some members of the Elders Association intended to go to the provincial capital to petition (III10. Coercion), but failed owing to insufficient funds. Nevertheless, this move caused panic in the town government.

The mayor of the town government told us: “*Don't be in a hurry, take your time. If the problem can be solved, we can definitely help you solve it.*” (III11. Disincentive & Dominant information) [The town government] is afraid that if there is disorder it will be difficult to control, and the cadres are all so afraid of disorder. (Interview No. 44)

Despite a new round of letters following the launch of the WAWRP (Fig. 2), no progress had been made. Inspired by the Elders Association, a group of villagers gathered in the middle of the road to stop the staff of the KMNNR Management Bureau (III12. Coercion). They insisted that WAWRP did not make sense as aquaculture first and mangrove conservation later. In terms of statutory and customary land tenure, the licensed mudflats had been used for aquaculture activities for decades. Unfortunately, this group event failed to earn any concessions or policy adjustments from the county government, which required that WAWRP must be completed within the specified time limit. A manifestation of more intense and organized conflicts is provided by Village Z in a neighboring county. On 15 August 2022, more than 20 villagers armed with banners and loudspeakers gathered in front of the county government (III13. Coercion) and were dispersed shortly afterward. The county government asked its officials with household registration in Village Z to “*go back and persuade the villagers*” and to “*return to work until the villagers are convinced.*” (Interview No. 45).

The central government and the reserve management bureau were the most powerful actors, and the community remained the least powerful owing to its unitary power strategy (Table 2). The abruptly widening power gaps and imbalanced power distribution between the policy coalition and the interest expression coalition (Table 2, Fig. 3) ultimately gave rise to the intense inter-coalition conflicts, in which low-power actors aspired to obtain expected outcomes and correct imbalanced power relations through interest expression of peasants group and even radical group events.

## 5. Discussion

### 5.1. Power dynamics, power asymmetry, and conflict escalation

The original power landscape has been dramatically reshaped, characterized by a shift in the relationships between multiple actors from tacit complicity to opposition between the policy coalition and the interest expression coalition (Fig. 1 and Fig. 3). The policy coalition is constantly empowered through the establishment of the new agency and the WAWRP, while the interest expression coalition remains powerless despite the involvement of the Elders Association (Table 2), indicating an ever-widening power gap between coalitions.

Local authorities in the policy coalition, equipped with the legal authority to enforce regulations and control over natural resources, are generally among the most powerful actors, including local governments and the reserve management bureau, in line with current power analyses (Sahide et al., 2016; Rahman and Giessen, 2017; Prabowo et al., 2017; Juerges et al., 2020; Marques et al., 2020; Purnomo et al., 2021; Juniyanti et al., 2021). Coercion is always the most important power resource. The overwhelming use of coercion and the slight increase in disincentives and dominant information (Table 2) have greatly counteracted the positive role of incentives in the mitigation of tensions between coalitions. The disproportionate growth in power resources demonstrates the local authorities' anticipation of failure to perform highly politicized strategic policy tasks with soft power strategies.

The community is typically the least powerful actor. Despite coercion serving as its sole power resource, the community has three alternative tactics: (i) coercion through spontaneous disobedience such as private operations and clandestine aquaculture; (ii) coercion through interest expression of peasants group; (iii) coercion through group events (Fig. 4). Although the coercive power of the community was ostensibly strengthened at the intensive margin (from strategy i to strategy ii to strategy iii), it was essentially weakened at the extensive margin, as the community's power resources for mild resistance (strategy i) were ultimately confiscated by local authorities through strict access restrictions, and the efforts to form a coalition with the Elders Association for group interest expression to counterbalance the powerful policy coalition (strategy ii) still failed to reverse local authorities' behavior, leaving only radical power resources (strategy iii) available. Apart from the shrinkage of power resources, the community's identity has undergone a marked degradation from conspirator with the local authorities to antagonist and subordinate to them. This growing asymmetry of power and identity inevitably led to the community's last-ditch resort to the extreme power strategy and the sudden escalation of long-dormant conflicts. Therefore, when power gaps between coalitions widen, the interest expression coalition tends to adopt stronger power strategies to correct the increasingly imbalanced power relations, leading to the escalation of resistance (Fig. 4). The mapping relationship between strategy adoption and resistance intensity (Fig. 4) suggests the significance of considering the heterogeneity of specific power resources in conflict escalation.

We highlight a polarized hypothesis of the powerful actors being empowered and the weak actors being disempowered, which differs fundamentally from the body of current power analyses characterized by the empowerment of new or less powerful actors and the disempowerment of incumbent or powerful actors through structural changes such as decentralization and devolution reforms, participation

<sup>8</sup> A production squad consists of 50 to 60 households (about 100 villagers).

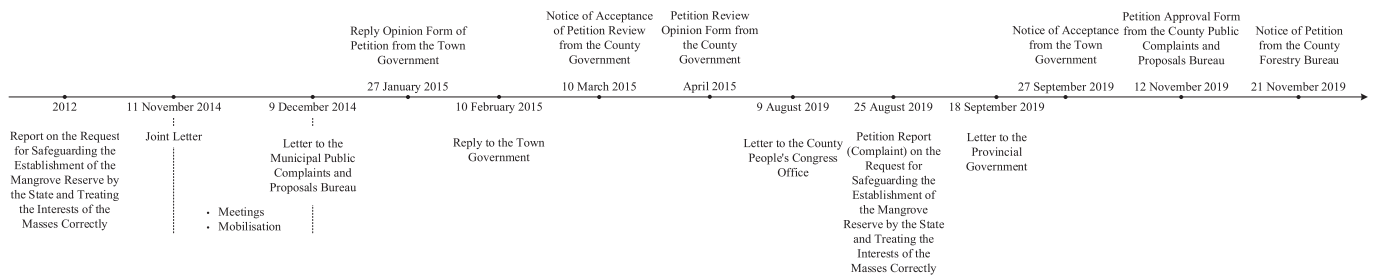


Fig. 2. Timeline for the Elders Association's petition efforts and local authorities' responses (2012–2019).

Note: The month and day of some of the events are unknown.

in decision-making, program and policy implementation, and the establishment of competing agencies (Maryudi et al., 2016; Ravikumar et al., 2013; Prabowo et al., 2017; Nantongo et al., 2019; Wibowo and Giessen, 2015). Some claim that coercive power has substantially relocated from traditional agencies to government bureaucracies outside the professional realm (Rahman et al., 2016; Rahman and Giessen, 2017). Dobsinská et al. (2020) provide evidence of the power shift from the public and the dominant political parties in the policy formulation phase to the liable entities in the forest restitution process. This “power relocation thesis,” however, has received substantial theoretical and empirical criticism, particularly from a governmentality perspective on resource governance in which a general retreat of the state is not observed (Arts, 2014; Boonstra and Frouws, 2005). The assumption of power shift or relocation from state actors towards market and civil society actors is subsequently further challenged by arguing for the governance transformation featured by a shift in policy strategies from coercion towards incentives and dominant information (Juerge et al., 2020), or a minor power transformation from public actors towards private actors (Başkent, 2022). However, the aforementioned arguments still show the impotence in accommodating both the local authorities' acquisition of strong power resources for accomplishing highly politically relevant tasks and the seizure of soft power resources owned by the community for mild resistance: first for the opposite directions, second for our major concerns lying in local authorities and communities rather than state actors, and last for the weak link with conflicts. While we agree with the transformation rather than the relocation of state power, given that the central government still exerts its broad structural influence through recentralization, cadre rotation and turnover, and other domains despite devolution reforms (Arts, 2014; Mei and Pearson, 2014), we have witnessed an evident power relocation from communities towards local authorities.

Despite the seemingly entrenched weak position of communities (Rahman et al., 2016; Purnomo et al., 2021) that are susceptible to being “co-opted, ignored, over-ruled, or excluded” by dominant actors (Dewulf and Elbers, 2018), the peasants' spontaneous action with remarkable leaps and bounds, has great potential to abruptly move from tolerant silence towards “radical, impulsive, and bottomless action” (Thaxton, 1990; Ying, 2007), particularly when they are put in a desperate quandary or confront the end of resources. Hence, to prevent conflicts from escalating into uncontrollable group events, the authorities should not deploy such strong-arm power tactics as one-size-fits-all approaches or coercion through threats and repression of grassroots mobilizers and villagers. This may provoke an aura of struggle-to-the-end and non-compromise among the peasants group (Ying, 2007). Authorities should carefully consider residents' traditional informal institutions and their demands and appeals.

The retreat of the Elders Association from the policy coalition has contributed to the differentiation and polarization of power groups. The Elders Association's identity has dualistic properties of high elasticity and scalability. Long-term accumulated reputation and prestige, full knowledge of bureaucratic structures and the logic of departmental interactions, and vast experience in village affairs allow it to transform

from the village system elite, originally serving the village committee by helping with the ideological mediation among villagers, into the village non-system elite as a grassroots actor mobilizing villagers to join the interest expression of peasants group and rebel against the local authorities, once its interests are severely compromised. The involvement of the Elders Association and the emergence of the interest expression coalition will enhance the level of cohesion, organization, and legitimacy of the community's action in claiming its interests (Ying, 2007), reduce the transaction costs of collaboration and mobilization, and improve the prospects for collective action (Folke et al., 2005; Murunga et al., 2021). However, this relatively loose coalition<sup>9</sup> compared to the policy coalition might disintegrate if the Elders Association is bought and bribed to abandon its voice for the villagers to achieve local authorities' policy objectives, particularly if the Elders Association lacks financial resources. Therefore a necessity exists to reconcile the objectives of the policy coalition with the interests, appeals, and demands of the interest expression coalition, similar to Marques et al. (2020). This entails not only the recognition of communities' customary claims to natural resources and traditional village governance systems, but also the incorporation of balance between ecological conservation and economic concerns into public administration policymaking procedures (Zeb et al., 2019; Hubo and Krott, 2013).

## 5.2. Conflict management under an authoritarian regime

In this case, as opposed to recent observations (Rahman et al., 2016; Rahman and Giessen, 2017; Brockhaus and Di Gregorio, 2014), the power changes failed to drive policy renewal or “set the limits and direction for the development of domestic policies,” but rather the intensified conflicts. Underlying an authoritarian regime, communities are not entitled to translate their perceptions into policy practice, and the local historical context and informal institutions are extensively disregarded. Conflicts tend to manifest themselves more intensely and intensively as policy implementation constitutes their only outlet. Therefore, it is necessary to ensure well-organized conflict management given the social, economic, and personal costs evoked by conflicts (Yasmi et al., 2013; Murunga et al., 2021), despite the potentially active role of conflicts in the community's collective action (Yasmi et al., 2013), the policymaking progress (Brockhaus and Di Gregorio, 2014), the reflection on recognition, sovereignty, and rights in governance, and the shaping of actors' behavior and inter-actor relationships (Murunga et al., 2021). A conflict management diagnosis and toolkit containing procedural and relational elements (Walker and Daniels, 1997; Niemelä et al.,

<sup>9</sup> The looseness of the interest expression coalition is reflected in: (i) the absence of written rules and regulations for the Elders Association; (ii) the necessity to use incentives and dominant information when the Elders Association mobilized villagers to sign, and the fact that not all villagers were willing to sign due to concerns about legitimacy dilemmas; (iii) the failure of the Elders Association to raise adequate funds (from the community) for the petition to the provincial capital; (iv) the fact that the unorganized group event in the community after the failed petitions was not led by the Elders Association.



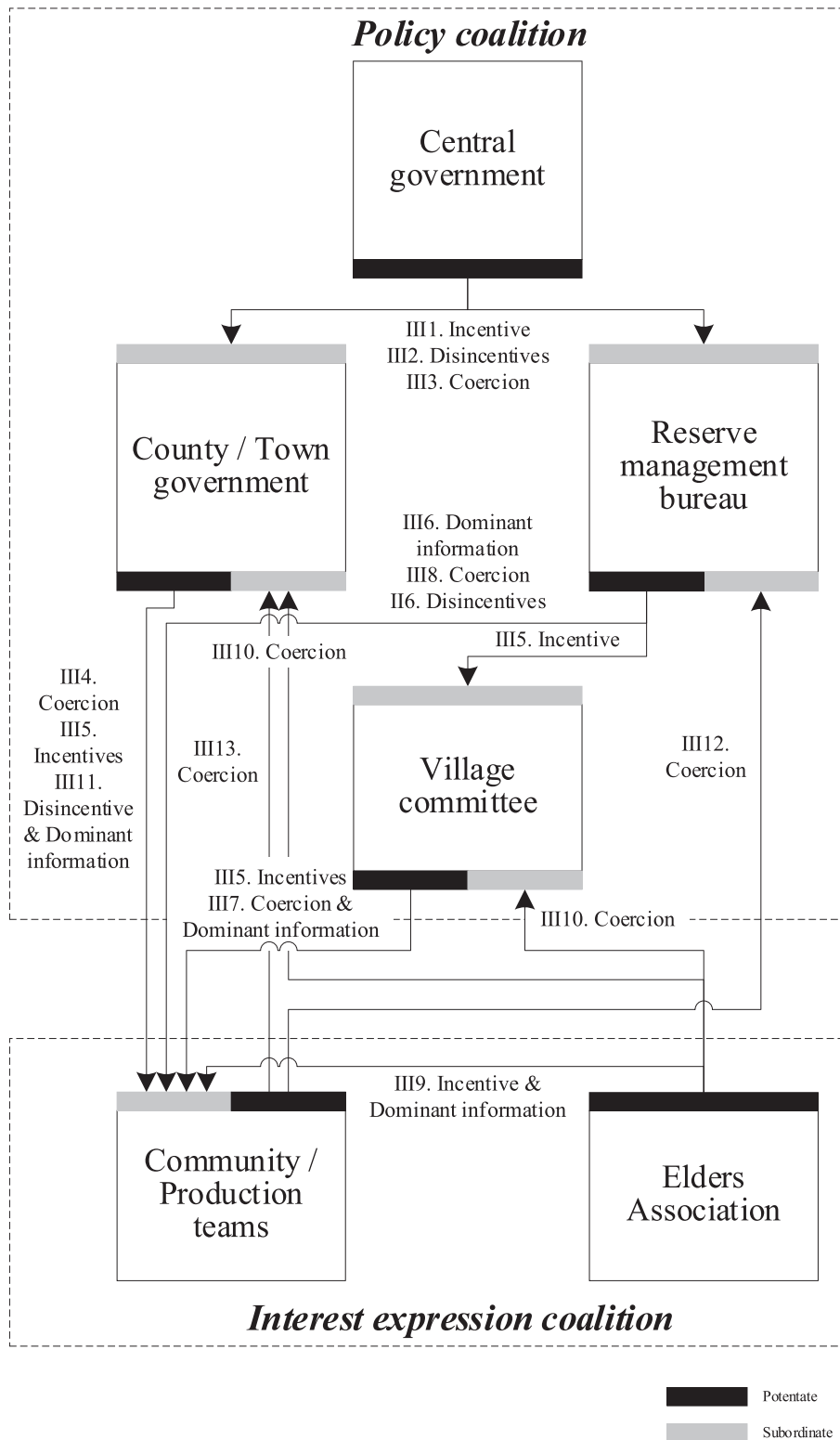


Fig. 3. Power landscape during conflict intensification (post-2012).

2005) that contribute to the exacerbation and mitigation of conflict is provided in Table 3.

Conflict intensification is related to the imbalanced distribution of conflict aggravators and mitigators. Conflict aggravators can be categorized into four types: (i) tenure insecurity (grabbing of aquaculture ponds) and access constraints; (ii) competing interests (suspension of subsidies); (iii) discrepancies in beliefs and values (legitimization of

conservation through discourse alteration, misreporting of mangrove area, and retreat of village system elites from the policy coalition); (iv) institutional failures (local elitism and corruption) and institutional weaknesses of authoritarianism (top-down or command-and-control approach and denial of community's rights to subsistence and development). Conflict mitigation can be achieved in two ways: (i) bridging ideological divides and fostering consensus through the exchange of

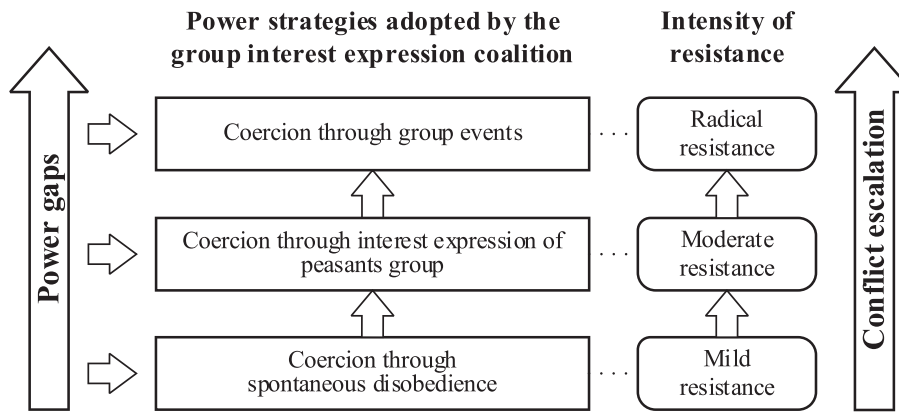


Fig. 4. The mechanism of conflict escalation driven by power asymmetry.

Table 3

Procedural and relational elements contributing to the exacerbation and mitigation of conflicts.

The evolution of conflict	Conflict aggravators	Conflict mitigators
Conflict latency	<i>Strong</i>	<i>Strong</i>
Conflict intensification	<ul style="list-style-type: none"> <li>Natural resource grabbing</li> <li>Legitimization of conservation through discourse alteration</li> <li>Misreporting</li> <li>Suspension of subsidies</li> <li>Local elitism and corruption</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge, expertise, skills and experience</li> <li>Value adding and brand management</li> <li>Negotiation and community co-management</li> </ul>
	<i>Strong</i>	<i>Weak</i>
	<ul style="list-style-type: none"> <li>Top-down or command-and-control approach</li> <li>Strict access restrictions</li> <li>Denial of community's rights to subsistence and development</li> <li>Retreat of village system elites from the policy coalition</li> </ul>	<ul style="list-style-type: none"> <li>Incommensurate compensation</li> </ul>

knowledge, expertise, skills and experience, and through negotiations between different social groups (Cinner et al., 2009; Davies et al., 2013; Zeb et al., 2019), community participation (Barli et al., 2006; Marques et al., 2020; Ernst and Fuchs, 2022) and co-management (Bennett et al., 2001; Zeb et al., 2019); (ii) moderating interest disputes through benefit-sharing mechanisms (Soliev et al., 2021; Tshidzumba and Chirwa, 2022) such as value addition to agricultural products, income growth, and adequate compensation. These measures have proven to be influential in relieving tensions in our case and are also supported by a wide range of conservation literature.

6. Conclusion

Our analysis provides robust evidence of conflict escalation driven by power dynamics and power asymmetry through the expedient use of power resources by actors, contributing to an in-depth understanding of the necessity of maintaining power balance in multi-actor conflict management under an authoritarian regime. As the policy coalition uses strong power strategies to exacerbate the power inequality between coalitions, the interest expression coalition tends to correspondingly adopt stronger power strategies to bridge the widened power gap, prompting the escalation of conflicts.

Peasants should not be stigmatized as a rebellious group. Their

livelihood sovereignty has been aggressively challenged by a highly politicized policy coalition composed of central and local authorities through interest usurpation, rights erosion, and power resource deprivation. Nevertheless, due to their limited political nature, the less ambitious peasants' almost exclusive aspirations for livelihood and well-being rather than disrupting the social order or reshaping the current power landscape mean that they will not prioritize the adoption of radical power strategies. Mild resistance by communities therefore merits more tolerance from local authorities, which is not only limited in scale and easy to control but also constructive and productive in the mitigation and resolution of potential disputes.

Given the complexity of the conflict in terms of temporal and spatial scale (Young et al., 2010), and potential invisibility or crypticity of conflict based on recognition and communication (Kolb and Bartunek, 1992; Idrissou et al., 2013; Hubo and Krott, 2013), it can be challenging to unravel the panorama of conflicts. Since local officials are inclined to conceal the truth and report biased or untrue perceptions when confronted with politically sensitive issues, we can only outline a general landscape of local authority misbehavior through the lens of the community. A further investigation into the role of intermediary actors involved in bribery and their underlying social bonds with local authorities in hiding the visible tensions might be intriguing for future conflict studies.

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CRedit authorship contribution statement

**Weiye Wang:** Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Writing – original draft, Writing – review & editing. **Daye Zhai:** Formal analysis, Investigation, Data curation, Writing – original draft, Writing – review & editing. **Xinyang Li:** Formal analysis, Data curation, Writing – original draft. **Haowen Fang:** Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Writing – original draft. **Yuanyuan Yang:** Conceptualization, Methodology, Writing – review & editing.

Declaration of Competing Interest

This manuscript has not been published or presented elsewhere in part or in entirety and is not under consideration by another journal. We have read and understood the journal's policies, and we believe that neither the manuscript nor the study violates any of these. There are no conflicts of interest to declare.

**Data availability**

The authors do not have permission to share data.

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**Appendix A. Appendix****Table A.1**

Interview information.

Number	Date	Interviewee
1	20 November 2019	Director of the Provincial Wildlife Protection Center
2	20 November 2019	Deputy Director of the Provincial Wetland Protection Center
3	21 November 2019	Director of the Forest Chief Department of the Provincial Forestry Bureau
4	22 November 2019	Director of the Provincial Wildlife Protection Center
5	22 November 2019	Director of the Protected Areas Management Department of the Provincial Forestry Bureau
6	26 November 2019	Director of the Provincial Wetland Protection Center
7	27 November 2019	Director of the Marine Ecological Environment Department of the Provincial Department of Ecology and Environment
8	27 November 2019	Director of the Protected Areas Management Department of the Provincial Forestry Bureau
9	28 November 2019	President of Provincial Bird Watching Association
10	2 December 2019	Professor at Xiamen University
11	2 December 2019	Director of the Alashan Society of Entrepreneurs & Ecology (SEE) Conservation Ecological Association
12	3 December 2019	Professor at Xiamen University
13	4 December 2019	Director of the Research and Education Center of the KMNNR
14	4 December 2019	Chief of the Resource Protection Department of the KMNNR Management Bureau
15	13 October 2020	Chairman of the Presidium of the Town People's Congress
16	13 October 2020	Town mayor
17	13 October 2020	Captain of the Law Enforcement Brigade of the County Fisheries Bureau
18	14 October 2020	Deputy Director of the KMNNR Management Bureau
19	14 October 2020	Captain of the County Border Defense Force; Party secretary of Village D
20	15 October 2020	First secretary stationed in Village X; Member of X Village Committee
21	15 October 2020	Members of Elders Association of Village X
22	16 October 2020	Members of Elders Association of Village X
23	16 October 2020	Resource Protection Department of the KMNNR Management Bureau
24	17 October 2020	Seafood restaurant owner from Village X
25	17 October 2020	Vice-President of Elders Association of Village X
26	17 October 2020	Director of the Women's Federation of X Village Committee
27	19 October 2020	Woman working outside of Village X
28	19 October 2020	Asparagus planter from Village X
29	19 October 2020	Milk tea shop owner from Village X
30	20 October 2020	Woman working outside of Village X
31	21 October 2020	Seafood restaurant owner from Village X
32	21 October 2020	Member of the X Village Committee responsible for mediation and forestry
33	22 October 2020	Chief of the Planning and Finance Project Department of the KMNNR Management Bureau
34	22 October 2020	Restaurant owner from Village X
35	23 October 2020	Villager of Village X
36	23 October 2020	Villager of Village X
37	23 October 2020	Clam Catching Woman from Village X
38	25 October 2020	Village doctor at the Town Health Center
39	26 October 2020	Large-scale aquaculturist from Village X
40	27 October 2020	Chief of the Resource Protection Department of the KMNNR Management Bureau
41	27 October 2020	Assistant committee member in charge of household registration at X Village Committee
42	11 May 2023	Members of Elders Association of Village X
43	11 May 2023	Member of Elders Association of Village X
44	12 May 2023	Member of Elders Association of Village X
45	13 May 2023	Villagers of Village Z

**Table A.2**

Document information.

Number	File name
1	County Annals
2	County Statistical Yearbook
3	Planning of KMNNR
4	113 articles from the WeChat official account of the KMNNR
5	Archives of Village X (2023)
6	Planning of Village X (2022–2035)
7	Address book of Elders Association of Village X
8	Certificate of Award awarded by the State Council to County Aquaculture Farms
9	County People's Court Mediation Letter
10	County Aquaculture Farm, X Brigade and Y Brigade of D Commune Agreement on the Management and Use of Unused Land around the Sea
11	Opinions on the Handling of Issues Pertaining to the Seawall from the Town Government

(continued on next page)

Table A.2 (continued)

Number	File name
12	Report on the Request for Safeguarding the Establishment of the Mangrove Reserve by the State and Treating the Interests of the Masses Correctly
13	Mudflat Use Management Contract between X Village Committee and KMNRR Management Bureau
14	Joint Letter
15	Reply Opinion Form of Petition from the Town Government
16	Reply to the Town Government
17	Notice of Acceptance of Petition Review from the County Government
18	Postal delivery slip (receipt) for the Joint Letter sent to the County People's Congress Office
19	Petition Report (Complaint) on the Request for Safeguarding the Establishment of the Mangrove Reserve by the State and Treating the Interests of the Masses Correctly
20	Postal delivery slip (receipt) for the Joint Letter sent to the Provincial Government
21	Notice of Acceptance from the Town Government
22	Notice of Petition from the County Forestry Bureau

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