The Social Resilience of Women in Coastal Villages of East Java during the COVID-19 Pandemic

By Emy Susanti,1 Tri Soesantari,2 Sutinah,3 and Henny Rosalinda4

Abstract
During the COVID-19 pandemic, the living conditions of rural women in coastal areas of East Java became increasingly difficult. The aim of this study is to reveal the important roles of women and their social resilience to survive during the pandemic. This research was conducted in poor coastal villages in the province of East Java, namely: 1) Surabaya City with multicultural characteristics; 2) Situbondo Regency with Javanese–Madurese mixed cultural characteristics and 3) Tuban Regency with Javanese cultural characteristics. The subjects of this study were married women who have children. Data collection was conducted for 2 months (June-July 2021) using a structured interview technique (questionnaire) with 185 respondents and an in-depth interview technique with 18 informants, including women and local leaders. The results of this study indicate the “coping” and “adaptive” capacities of women during the COVID-19 pandemic. Although women’s work in these coastal villages was categorized as unskilled work generating little income, women were still working to overcome the direct threat of the pandemic through available resources such as skills, time, family, and neighborhood ties. However, this study shows only a few capacities of the “transformative” type, whereby women have access to assets and assistance from wider social and political networks. This study shows a strong patriarchal culture influencing the lives of poor coastal rural women, but also reveals that the role of women was very important in maintaining family health and meeting income shortages for family needs during the COVID-19 pandemic.

Keywords: Indonesian Women, COVID-19 Pandemic, Patriarchy, Social Resilience, East Java

Introduction
As an archipelago nation, Indonesia is the second highest marine fish-producing country in the world. From a total population of over 250 million, over six million people are involved in fisheries and aquaculture in Indonesia, with approximately 95% of fishery production coming from small-scale fishers (FAO, 2016). There is considerable diversity in small-scale fishing (SSF) activities in Indonesia, which varies depending on the species targeted, gear used,
seasonality of the catch and the nature of markets (domestic or export). Many people, including women, men, youth and children, are involved in distinct aspects of pre-production, production, and post-harvest processing. Other people are involved in the trade of fish and other marine resources. Different fisheries-based livelihood strategies have been adopted by social groups in the coastal village communities. The strategies are influenced by preferences and cultural heritage, including the availability of alternative livelihood options, access to productive resources, and geography. Previous studies in Indonesia show that the only source of income to support or contribute to most households comes from the activities of fishing and seafood processing (Stacey et al., 2019).

42% of the population, including women and children, are engaged in fisheries in Indonesia applying traditional technology (Ariadno & Amelina, 2016). Similar to the situation in other countries, in Indonesia women are under-represented in fisheries development and policy, governance, and marine and habitat management (Alami & Raharjo, 2017). The lives of women in East Javan coastal villages are generally classified as poor. Many women work in seafood processing, which often has a negative impact on their health and social environment. During the COVID-19 pandemic, the living conditions for rural women in coastal areas became increasingly difficult. This study examines their social resilience and survival skills during the COVID-19 pandemic.

Social resilience is about social entities and their ability to tolerate, absorb, cope with and adapt to various types of environmental and social threats. Social resilience includes various types of assets, in the form of economic capital, physical capital, natural capital, and human capital (Ungar, 2008). Assets are products of social relationships, social capital and social networks and play a key role in building and maintaining social resilience. Broadly, social resilience also includes the rules and norms structured by social practices that fundamentally determine their structure and distribution. Assets reflect power relations in society and are a major determinant of social resilience (Cinner & Barnes, 2019). Furthermore, an important aspect of social resilience is the power to determine what is considered a threat or disaster and what is not.

This study of coastal village women not only examined social resilience capacities in intra-household relationships, since that is insufficient to understand the strategies of social resilience for the long-term, but also looked at the social resilience capacities of women in broader community engagement, with the assumption that these capacities will influence their ability to survive. It should be noted whether within or beyond the family, whether with women or men, these wider relationships are part of the patriarchal structure (Walby, 1989). A system of patriarchy is a key concept that reveals the capacities or lack of capacity for social resilience among poor families of coastal villages. The interconnection between patriarchy and social resilience must be acknowledged and explored. The aim of this study is to reveal the capacities of social resilience and the role of women in maintaining their family survival and to uncover gender relations during the COVID-19 pandemic.

**Research Method**

This research used a gender perspective in that the research was carried out with active participation of the research subjects—women—and focused on gender relations. This research was conducted at coastal villages in the province of East Java: 1) Surabaya City with multicultural characteristics, 2) Situbando Regency with Javanese–Madurese mixed cultural characteristics, and 3) Tuban Regency with Javanese cultural characteristics. The subjects of this
study were married women with children. The data was collected by the research team assisted by our students using a structured interview technique—an offline questionnaire given to women respondents who had been chosen purposely. During two months (June-July 2021), 185 respondents were interviewed using the questionnaire (64 respondents at Surabaya City, 60 respondents at Tuban Regency, and 61 respondents at Situbondo Regency). This study also included in-depth interviews with 18 women and local leaders. The data processing involved SPSS (Statistical Package for Social Science) technique for the questionnaire data and a transcription technique for data from in-depth interviews. The process of data analysis was an inductive technique, from the empirical data to the theoretical analysis and conclusion.

**Results and Discussion**

The concept of social resilience, in addition to focusing on individuals, also focuses on households and communities by looking at the way they face threats. This includes their capacity to respond, which then develops into the learning and adaptation stages, acknowledging the important role that power, politics and participation play in times of uncertainty and shock. Social resilience includes the timely capacity of individuals and groups—families and communities—to respond to disruption and disaster, including their capacities to be more productive during times of stability and to adapt, reorganize, and grow (Van Breda, 2018).

According to Keek and Sakdapolrak (2013), there are three types of capacities included within the notion of social resilience. These three types of capacities are: 1) Coping capacities, or “reactive” and “absorptive” capacities, that determine how people cope with and overcome immediate threats by the means of directly available resources; 2) Adaptive capacities, or “proactive” or “preventive” capacities, that people employ to learn from past experiences, anticipate future risks, and adjust their livelihoods accordingly; and 3) Transformative capacities that include people’s ability to access assets and assistance from the wider socio-political arena and to craft institutions that improve their individual welfare and foster societal robustness for future crises.

The concept of patriarchy is important for understanding women's lives, since the system of patriarchy presents obstacles to their advancement and development. Despite variations in levels of male domination in different countries and areas, the broad principles remain the same—men are in control. Although the nature of this control may differ, it is necessary to understand how patriarchy keeps women dominated and subordinate in both the public and private spheres. It is also important to unravel how patriarchy works against women's development in order to work towards their development in a systematic way. Patriarchy creates obstacles that prevent women from moving forward by their own merit in society. Patriarchal society gives absolute priority to men and, to some extent, limits women’s human rights also. Feminists have located patriarchal institutions and social relations as the root causes of the subordinate, second-class status of women (Walby, 1989 and Walby, 2013). The results of this study reveal that women were able to cope with the patriarchal system and play a key role in building the social resilience necessary to survive during the COVID-19 pandemic.

*Women’s Work, Family, and the Capacities of Social Resilience*

This study shows women’s coping capacities to create social resilience, namely through the "reactive" and "absorvent" abilities described above. Women in coastal villages in this study were busy every day with processing marine products on the one hand and managing households on the other hand. However, women in these coastal villages coped with the direct threat, namely
the COVID-19 pandemic, by using available resources. This study shows that these poor coastal village women live with limitations in incomes that fall below the national average wage (see Table 1). Women received less than IDR 2 M (equivalent to USD 200) per month, in comparison to the national wage standard, which is about IDR 3.8 M (equivalent to USD 350). The income of women in Tuban Regency was lower than in Surabaya City. Previous studies in Pacific countries and in other areas of Indonesia also indicate the lower income of women living in coastal villages (Alami, et al, 2017; Kleiber, et. Al, 2018).

![Table 1: Income of Coastal Rural Women during the COVID-19 Pandemic](image)

Table 1: Income of Coastal Rural Women during the COVID-19 Pandemic

<table>
<thead>
<tr>
<th>Wage Range</th>
<th>Surabaya (64)</th>
<th>Tuban (60)</th>
<th>Situbondo (61)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; IDR 1.000.000</td>
<td>70</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>IDR 1.000.001-2.000.000 (101 USD - USD 200)</td>
<td>60</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>IDR 2.000.001-3.000.000 (201 USD - USD 300)</td>
<td>55</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>IDR 3.000.001-4.000.000 (301 USD - USD 400)</td>
<td>55</td>
<td>54</td>
<td>54</td>
</tr>
</tbody>
</table>

Data from 2021

Although the women’s income was low, the majority of women produced up to 60% of their families' income in Surabaya and 30% in Tuban. As stated by one of the local leaders, women in coastal villages make a significant contribution to family finances that allows them to survive during the COVID-19 pandemic:

Here in this village, during the COVID-19 pandemic the activities of husbands who work as fishermen decreased because some were sick and didn't go to sea to look for fish. To cover our daily food needs, we only depend on the income of my wife who processes and sells seafood (Mr. Mhd, age 51, Chair of Neighborhood Community, Situbondo Regency, July, 2021).

During the COVID-19 pandemic, women continued to work and earn income, while many of their husbands didn't work or worked part time with small income. The results of this study indicate that about half of women in coastal villages produced more than half of their family income. In Situbondo Regency, half of women produced 83.6% and in Tuban Regency, women produced 48.4% of their family’s income. Other studies in Indonesia and the Philippines also
show that women’s work at seafood processing in coastal villages produces a significant amount of their families' income (Pomeroy, et al, 2017; Loneragan, et al, 2018).

The types of work performed by coastal rural women included seafood processing, packing, and sales. Only about 5% of women worked in management or finance. Seafood production during the COVID-19 pandemic decreased considerably, up to 40% in Surabaya and 60% in Tuban. This study found that the majority of women in coastal villages work in processing, namely cooking seafood, which does not require special training in the workplace. This norm is created by the traditional gender division of labor in which the training is performed at home through traditional gender roles. In Surabaya, some women work in sales at the stores or work in packing. Similar studies in the Philippines and Zambia found that women in coastal villages work in seafood processing (Pomeroy, et al, 2017; Rajaratnam, et al, 2016).

From these facts, we could take note that although women’s work in coastal villages is categorized as unskilled, women are still taking steps to overcome the direct threat of the COVID-19 pandemic by using their directly available resources, which is a "reactive" step of social resilience. Women in this study have few alternatives to get income for their families because of their limitation of skill and time. This study shows that although the production of seafood processing has decreased during the COVID-19 pandemic, women in the coastal villages
have survived by relying on their relatives, as stated by a mother of a three-year-old son: “I still have to work because my husband doesn't work during the COVID-19 pandemic, my relatives help a lot with food delivery, but I don't want to depend on relatives only to survive” (Mrs. Eka, age 32, Tuban Regency, July, 2021). Previous studies in Africa also show that women rely on their relatives to survive during disaster periods (Kawarazuka, et al, 2019 and Kawarazuka, et al, 2017).

Table 3:
The Percentage of Decreased Production during COVID-19 Pandemic
(N= Surabaya 64; Tuban= 60; Situbondo= 61)

<table>
<thead>
<tr>
<th>Percentage Decrease</th>
<th>Surabaya</th>
<th>Tuban</th>
<th>Situbondo</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20%</td>
<td>80%</td>
<td>60%</td>
<td>61%</td>
</tr>
<tr>
<td>21-40%</td>
<td>20%</td>
<td>40%</td>
<td>61%</td>
</tr>
<tr>
<td>41-60%</td>
<td>0%</td>
<td>0%</td>
<td>61%</td>
</tr>
<tr>
<td>61-80%</td>
<td>0%</td>
<td>0%</td>
<td>61%</td>
</tr>
</tbody>
</table>

Data from 2021

During the COVID-19 pandemic, women still work in seafood processing although the production decreased significantly. This study reveals that there was a disguised unemployment among women in the coastal villages of East Java. This fact also shows the social resilience capacity of women who took the step of continuing to work in order to absorb and overcome the direct threat by using directly available resources (i.e. skills, time, and family ties). A study in Nigeria found that the social resilience capacity of women during disaster is increased by depending on their relatives (Akinsemolu & Olukoya, 2020).

Social Resilience, Women’s Roles, and Patriarchy

The results of this study show how women continued to work in seafood processing during the COVID-19 pandemic to survive, and how they used adaptive capacities to take “proactive” or “preventive” measures. In these poor coastal villages, women learned from past experiences, anticipated future risks, and adjusted their livelihoods. However, the results of this
study reveal there were no “transformative” capacities of women to access assets and assistance from the government and the wider socio-political system, an absence which directly stems from patriarchy. The majority of women with toddlers had to take care of their children while working in sometimes dangerous situations. These women experienced extra burdens during the “new normal.” Many children play near their mothers as they cook seafood in large skillets and pots over big fires. Other children accompany their mothers as they sell seafood products on the side of busy roads. The results of this study shows that many women bear multiple burdens and receive little or no protection at work.

Table 4: Toddler Care during the COVID-19 Pandemic, 2021
(N= Surabaya 64; Tuban= 60; Situbondo= 61)

<table>
<thead>
<tr>
<th>Women take care of Toddlers while working</th>
<th>Older Daughter</th>
<th>Other Family Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>80</td>
<td>20</td>
</tr>
</tbody>
</table>

Although the production of seafood has been reduced during the COVID-19 pandemic, many women continue working and simultaneously take care of their children while working. There was a small difference in who takes care of children: in Surabaya City and Tuban Regency, the majority of women take care of the children by themselves, while in Situbondo Regency, the majority of women were assisted by their older daughter.

Furthermore, this study shows that during the COVID-19 pandemic, because of the study from home policy, the children in the coastal villages, like the children in other areas, stayed at home almost all day. Therefore, the majority of coastal women in East Java villages have difficulty combining work and household tasks. Most women stated that they ‘sometimes’ and even ‘often’ or ‘very often’ have difficulty combining work and household tasks. There was no significant difference between women's situations in Surabaya City, Situbondo Regency, and Tuban Regency. Despite these difficulties, the women were still working processing seafood at
home. Although during the pandemic the husbands were also at home, domestic duties remained a burden primarily for the women. There are strong interconnections between resilience and vulnerability as explained by Christophe Béné, Rachel Godfrey Wood, Andrew Newsham, and Mark Davies (2012). It's important, however, to acknowledge the agency and efforts that women have during the pandemic. It is equally important to recognize that the pandemic also creates greater vulnerability for these women.

This study reveals the adaptive capacities of coastal women to take proactive or preventive measures by learning from past experiences, anticipating future risks, and adjusting their livelihoods accordingly. These capabilities improve their individual welfare and foster social resilience in future crises. This study shows that these women were living and working within a patriarchal culture and that their social resilience in this situation demonstrated adaptive capacities in response to patriarchy. A previous study indicated similar results insofar as women's social relationships are part of the patriarchal structure, whether within or outside of the family (Meinzen-Dick et al, 2014; Wencélus et al, 2016). Patriarchal culture and structure are key concepts that require capacities of social resilience among poor families, and particularly women, in coastal villages.

Women play a very important role in maintaining family health and in actively seeking information and assistance to deal with the COVID-19 pandemic and to meet income shortages for family needs. During the COVID-19 pandemic, women played a significant role in strengthening the social networks of the family, neighbors, and local leaders.

Table 5: Parties Who Helped Coastal Rural Women during COVID-19 Pandemic, 2021
(N= Surabaya 64; Tuban= 60; Situbondo= 61)

<table>
<thead>
<tr>
<th>Party Type</th>
<th>Surabaya</th>
<th>Tuban</th>
<th>Situbondo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner of Business</td>
<td>70</td>
<td>65</td>
<td>80</td>
</tr>
<tr>
<td>Extended Family</td>
<td>40</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>Moneylender (Bank Titil)</td>
<td>10</td>
<td>15</td>
<td>5</td>
</tr>
</tbody>
</table>

The parties who often helped coastal rural women during the COVID-19 pandemic were the owners of the businesses where they worked and their extended families. Some women got loans at high interest rates from money lenders. No specific assistance was received from the local government. This study, however, found that women in coastal villages in Surabaya City, Tuban, and Situbondo Regency created their social networks among their neighborhood (including the
owners of businesses) and their extended families (see table 5). This study confirms previous studies in coastal villages in other parts of Indonesia that examined fisherwomen’s roles in fishery resource management and creating strong social networks (Alami and Raharjo, 2017; Loneragan et al, 2018). This study indicates, along with a prior study, that women were “bargaining with patriarchy” (Ali, 2014). For the sake of their daily and long-term survival, women were creatively negotiating for better options and outcomes for themselves and their families. A study of a poor community in Guatemala also shows that patriarchy is negotiable and that women create opportunities to negotiate within and beyond their intra-household relationships (Beck, 2017). This study reveals that women in coastal villages of East Java played important roles in ensuring their families’ and their own survival and that their social resilience was community-based.

Table 6: Needs during the COVID-19 Pandemic
(N= Surabaya 64; Tuban= 60; Situbondo= 61)

![Bar chart showing the needs during the COVID-19 pandemic.](image)

For coastal rural women, the most important type of assistance needed during the COVID-19 pandemic was groceries and food. Health services and medicine were also another important aspect of need. As shown from data in table 5 and 6, this study shows only a few women who have transformative capacities since women in coastal villages have no access to assets and assistance from wider social and political networks. Women only got assistance from their family and through neighborhood ties in the community. This situation is similar to that described in a study in Zambia before the COVID-19 pandemic, which showed that the transformative capacities of women were low (Rajaratnam et. al, 2016). There was no specific government assistance for women in coastal rural areas, since the work of fishing is considered to be men’s work (Steenbergen et al, 2017).

During the COVID-19 pandemic, women were instrumental in maintaining family health and in actively seeking information and assistance in dealing with the COVID-19. The capacities of ‘coping’ and ‘adapting’ to develop social resilience can be seen in the description of one woman’s life on the rural coast of Surabaya City:
Mrs. Bdi is a fish-cracker producer and trader who sells at the Kenjeran Beach Amusement Park. Since the amusement park was temporarily closed due to COVID-19 pandemic, Mrs. Bdi sold fish crackers in front of her sister's house. Mrs. Badi was born in 1970 and has two daughters and four grandchildren. Mrs. Bdi runs a fish cracker business which is an inheritance passed down from her parents. Since the 5th grade of primary school, Mrs. Bdi had been taught how to process fish by her parents so that she could take over the business. Before the COVID-19 pandemic, Mrs. Bdi collaborated with several supermarkets in Surabaya and sold fish crackers to several shops in the amusement park. During the COVID-19 pandemic, Mrs. Bdi’s income greatly decreased, due to the lack of buyers who came directly to her shop. During the COVID-19 pandemic she only worked with her husband, in contrast to before the COVID-19 when she had five employees to run her business. In household matters, Mrs. Bdi was assisted by her eldest daughter to ease Mrs. Bdi’s domestic work (Mrs. Bdi, age 45, married, owner of seafood products small store in Surabaya City, July, 2021).

What we could learn from this description is that there are important links between traditional family ties, women's multiple burdens, unequal gender relations, patriarchy inheritance (i.e. unskilled work), and survival strategies. The results of this study show gender inequality and a strong patriarchal structure surrounding the lives of coastal rural women. In the three coastal villages of Surabaya, Tuban, and Situbondo, men work as fishermen to find and harvest seafood while women work in marine product processing while taking care of their household. This study shows the capacities of women to survive during the COVID-19 pandemic by using coping and adaptive capacities, but not transformative capacities, because they have limited access to assets and assistance from wider social and political networks. The limitations of coping and adaptive capacities may lead to increased vulnerability for women.

**Conclusion**

During the COVID-19 pandemic, women played an important role in strengthening the social networks of the family, neighbors, and local leaders. Women also participated in the social life of their neighbors, helped each other to get information about the COVID-19 pandemic, and learned how to protect their families. Coastal rural women have three important capacities for building social resilience: namely the capacities to cope, adapt, and transform. The results of this study reveal gender inequality and a strong patriarchal culture surrounding the lives of coastal rural women in East Java. Women helped to meet income shortages for family needs, but they also bore multiple burdens of working in marine product processing and taking care of children and the household. During the COVID-19 pandemic, the role of women was very important in maintaining family health, actively seeking information and assistance in dealing with the COVID-19 pandemic, and meeting income shortages for family needs. In the “new normal,” women played a role in strengthening the social networks of the family, neighbors, and local leaders. In a strong patriarchal culture, women in coastal villages were the key to social resilience and survival during the COVID-19 pandemic.

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References


