

# Short communication

## The suitability of incentives in social research on artisanal fishing communities in coastal Kenya: A perspective

Edward Waiyaki\*, Hellen Moyoni, Faith Kimanga, Nicholas Karani

<sup>1</sup>Socio-Economics Directorate, Kenya Marine and Fisheries Research Institute, Box 81651–80100, Mombasa, Kenya

\*Corresponding author: ewaiyaki@kmfri.go.ke

### Abstract

Artisanal fishing communities in coastal Kenya contribute the largest proportion of the country's total marine catch. This, coupled with nutritional value of fish, and the global focus on ensuring food security to all populations, makes coastal fishing communities excellent research subjects. Despite their critical contribution to satisfying the nutritional needs of numerous consumers – local and foreign, many of these coastal fishing communities are engulfed in severe poverty. Kenya Marine and Fisheries Research Institute (KMFRI) has undertaken socio-economics research among artisanal coastal fishing communities for over two decades and today it is clearly evident that research fatigue amongst these communities not only exists, intolerance of this fatigue is increasingly pronounced. Hence, given the existing researcher-researched relationship, these communities that are relied upon for professional output seem to be getting the short end of the stick. There is need to provide them with some form of immediate and tangible appreciation for the assistance (data and otherwise) they provide. Herein, we present an overview of the benefits and disadvantages of incentives in social research, the appropriateness of the incentive approach with respect to socio-economics research on Kenya's coastal fishing communities and a potential solution to alleviating artisanal fisherfolk poverty.

**Keywords:** artisanal fishing communities, deprivation, social research, incentives

### Introduction

Many of the artisanal fishers found in Kenya's coastal region are rich in knowledge, but poor materially. These small-scale fishers suffer from abject poverty despite being custodians of a wealth of knowledge pertaining to their marine livelihood. The coastal region includes some of the poorest counties in Kenya, with Tana River, Kwale, and Kilifi ranking among the 14 counties with highest overall poverty and food poverty incidence. Tana River, Kwale and Kilifi counties show overall poverty headcount rates at 62.2, 47.4 and 46.4 percent respectively.

Most of the coastal population rely on coastal and marine ecosystems for employment, livelihoods and nutrition, however, population growth, narrow diversity of income sources and mostly open-access fisheries has led to increased overfishing and near-depletion of fish stocks in nearshore and territorial waters (Setlur, 2019). In an effort to address this plight, the marine division of the Socio-economics Directorate within the Kenya Marine and Fisheries Research Institute (KMFRI), is mandated to advise management on policies and strategies related to the use of Kenya's marine resources for community empowerment and sustainable development (KMFRI, 2024).

This division is focused on research associated with coastal communities' use of coastal and marine resources for their subsistence and commercial welfare. The focal point of this division's research is therefore the people (local communities) that rely on these resources: the division essentially engages in social research. The target group for the socio-economics research we conduct is primarily the artisanal fishing communities found along Kenya's coastline - from Kiunga in the North, all the way to Vanga in the South.

The most common instruments used in our cross-sectional socio-economics research are Questionnaires, Focus group discussions (FGD) and Key Informant Interviews (KII). These instruments are employed in a face-to-face setting, with the researcher posing the questions, and immediately recording whatever answers are provided by the respondent. For our research team, interviews using these instruments would on average take between forty-five to ninety minutes. For the overwhelming majority of fishing communities in which we conduct our research, the socio-economic status is dismal; as manifested in the form of decrepit mud-walled and thatched roof huts, lack of household assets such as chairs, radios or mattresses, low levels of education among household members and generally inadequate household income.

Given this context, we wish to put forward our perspective that the use of Incentives when conducting social research in such deprived communities, should be mandatory. The official position does not support the use of Incentives in social research, claiming that it contributes to collection of inaccurate data, especially through the promotion of social desirability bias amongst 'paid' respondents. We offer an alternative viewpoint, claiming that social research in deprived communities ought to leave the respondents materially better off once the activity is concluded. In the following sections we briefly explain what incentives in social research are, highlight their benefits and disadvantages, before setting forth our claim that these incentives when employed in research involving deprived communities are not only beneficial, but indeed necessary.

## **Types of incentives used in social research**

Incentives are all forms of monetary or non-monetary inducement given to (potential) respondents (Singer, 2002; Singer and Ye, 2013). Non-monetary research incentives used during social research in the Kenyan context, include foodstuffs (e.g., packets of maize or wheat flour, long-life milk, sugar and cooking oil) or consumer durables such as blankets. Literature shows that prepaid incentives are given in advance to all those who are contacted, irrespective of whether they participate in the survey or not. Conditional incentives are given to respondents after participation (Pforr, 2016). However, prepaid incentives may be unlikely to work in a less developed country's scenario such as Kenya, given the widespread poverty and deprivation experienced by significant sections of the population. Besides appreciating respondent's time and effort, incentives aim to increase response rates (Groves and Couper, 1998).

## **Benefits of incentives**

While each single survey is unique in terms of the collective variables involved, e.g., time of administering, geographical location, weather conditions and respondents participating, we can identify a few general advantages incentives can produce in a survey. It is generally assumed that incentives can increase response rates by persuading those who are not otherwise motivated to take part - i.e., the hard-to-persuade populations (Nicolaas *et al.*, 2019). Incentives allow for research respondents to be compensated for their time, expenses, inconvenience and for the degree of discomfort they may experience while participating in a research study (CUREC, 2020). Monetary incentives are often used to facilitate survey recruitment and motivate participation among individuals who might otherwise not respond (Singer and Bossarte, 2006; Singer and Couper, 2009). Several authors seem to conclude that incentives increase data quality, including by increasing accuracy (Singer *et al.*, 1998; Singer, Groves, & Corning, 1999). Some studies report significant positive effects of incentives on response quality, especially a reduction in item nonresponse (Olsen *et al.*, 2012; Ahlheim *et al.*, 2013).

## Disadvantages of incentives

The most obvious disadvantage of using incentives in social research is that they may incline respondents to provide answers that either they believe the interviewer wants to hear or they consider as socially acceptable. This results in what is known as Social Desirability Bias, which negatively compromises the quality of responses. Particularly in very poor households, respondents may feel the need to 'repay' the incentive they have received and what better way to do so than 'to make the interviewer happy by saying what they want to hear'. The use of incentives can also be incompatible with treating the participants with respect and dignity. Incentives can influence potential participants to take part in research. Participants can be at risk of exploitation from accepting an unreasonable burden of risk or agreeing to do something they wouldn't otherwise agree to take on. They may also feel influenced to take on inconvenient or uncomfortable activities, or be motivated to volunteer repeatedly for research studies offering remuneration for participation. It has been argued that incentives may inappropriately commercialize the relationship between researchers and research participants, with implications for public trust. Participants from financially disadvantaged groups and those in resource-poor contexts may be at risk in such a situation. When compensating for loss of the interviewee's earnings, researchers could compromise the work by focusing on the recruitment of "cheaper" participants (CUREC, 2020).

## Our perspective

Most of KMFRI's marine socio-economics research is conducted among coastal artisanal fishing communities. These communities, for the most part, share one characteristic: they suffer from (varying degrees of) poverty. This notwithstanding, it must be acknowledged that with the institutional developments that have over the years taken place within the Kenya's marine fisheries sub-sector – most especially the formation and subsequent development of the Beach Management Units (BMUs), significant strides have been made in addressing this scourge. However, these strides need to be

greater. Poverty in these communities manifests itself in various ways, including: low incomes (and the associated marginal standard of living); inadequate infrastructure, and; fishing (and fishing-related) activities undertaken at an economically unprofitable scale.

KMFRI's research has over the years been undertaken in key coastal fisheries centres, viz: Gazi, Msambweni, Shimoni, Vanga, Malindi, Ngome-ni, Lamu and Faza. The respondents we focus on are primarily the artisanal fishers (and other local stakeholders) at these sites. On many occasions we interview the respondents at their homes – usually the fishers are too tired to engage in an interview once they arrive from sea. Hence arrangement is made to visit them later in the day once they have had an opportunity to rest. At many fisher households, the level of poverty is clearly visible. Often there may only be one chair available – which is usually offered to the 'guest' (researcher), but many a time you and the respondent simply have to sit on any available stones, fallen palm trunks or perhaps plastic water containers. More often than not the fisher's home is mud-walled, lacking electricity, cemented floors or piped water. However, the cooperation, warmth and hospitality of most respondents more than makes up for any material deficiencies in their homes.

In the contemporary world of research, community participation is widely recognized, encouraged and duly rewarded as a means of co-production of knowledge. Is it therefore justified for the communities that researchers work with here in Kenya to receive some form of compensation immediately after data collection, this notwithstanding the subsequent (future) benefits of the research. Skeptics may take the view that 'This incentive would just be enough for one day' – but can any of us really know a household's condition on that one day? For someone in severe need, making ends meet in fishing households is sometimes problematic and sometimes results in a family sometimes sleeping hungry. It therefore important to note that a financial 'incentive', 'reward', 'token', or however else one terms it, would go at least some way in defraying a household's food costs?

Our bone of contention is this: From an ethical (moral or humane) standpoint, is it inappropriate for a team of government researchers to arrive at a fishing village severely affected by the poor fish catches (and the associated socio-economic deprivation), spend close to an hour questioning each fisher (on matters including the difficulties brought about by climate change and dwindling fish catches), and thereafter simply thank the fishers for their cooperation and then leave the village. Over the past few years – and especially in 2020 during the Corona pandemic, there had been increasingly frequent encounters where respondents vocally question the benefit of our research to them. The Kibuyuni Seaweed farmers and Majoreni fishing community in Kenya's south coast are two such examples of communities that are increasingly dissatisfied and frustrated with researchers' repeated visits to their villages, asking them the same questions year in, year out', and yet failing to uplift their standard of living in any way whatsoever.

While we often console ourselves with the rationale that 'research benefits are not immediate, they take time', could it be that we are simply failing to see the trees for the forest? For many of the underprivileged respondents (households) we interview, securing the day's meal is their immediate concern. Thinking about next week becomes impossible if you don't know what your family will eat today. Is it not incumbent upon us as researchers, no – on us as human beings, to take care of our neighbour's immediate needs, rather than paint them a picture of a rosy but distant future? We believe that in the long-run, a culture of incentivizing respondent communities will engender a sense of being appreciated, which would in most probability enhance the communities' willingness to participate in research activities, and in so doing, improve the quality of data generated from these communities.

The suitability of research incentives will always be context-specific, depending on the needs and desires of the particular community where the research is undertaken. What is needed is a framework that justifies and encourages the use

of incentives among the participating communities. We do not expect any radical, overnight paradigm shift in the way social research is conducted in Kenya. What we would like to see is the start of some form of institutional dialogue on how our research can move from the 100% extractive model, to a more respondent-focused approach, one that leaves the participating community in a tangibly better position after the interview than they were before it. How exactly this can be achieved requires the input of all concerned. Participatory stakeholder dialogue is the key. The Kenyan (developing country) context is far removed from that of the developed world where standards of living are much higher. For poor fishing communities the hand-to-mouth existence is simply the order of the day. But for us as Government, and being aware of this situation, is it not up to us to immediately do something about it? There is need to re-evaluate the existing research paradigm with particular respect to working with deprived communities in our country. Researchers need to remember that they are the main beneficiaries in any social research context. Immediate and adequate compensation to respondents from deprived communities needs to become the standard. While some may take the view that provision of respondent incentives is a certain way to creating dependency among the participating communities, we are of the view that this is an issue concerted consultation with stakeholders would resolve.

### **How can the impoverished artisanal fishing communities be helped?**

On a practical level, a potential solution to the poverty afflicting Kenya's artisanal marine fishing communities may well involve developing the Artisanal Marine Fisheries Market System (AMFMS). The AMFMS (as in any other market system) comprises of three key elements: the Core function (in this context the supply of fish by artisanal fishers); Supporting functions (i.e. those that assist artisanal fisherfolk in their fishing livelihoods, e.g., credit facilities, cold storage and transport services), and; Rules (the formal (laws, regulations and standards) and informal (values, relationships and social norms) controls

that provide a key input in defining incentives and behaviour in the AMFMS). Market Systems Development (MSD) is an approach that seeks to benefit lower income groups by unlocking key problems and opportunities they face in the market systems they engage in. The approach aims to improve the long-term efficiency and inclusivity of the systems that matter most to poor women and men. Thinking about 'systems' means focusing on the underlying reasons, the root causes (The Springfield Centre, 2015; DevLearn, 2022).

Unlike conventional approaches to poverty alleviation, where projects provide what is missing in impoverished communities, the MSD concept seeks to identify the root cause of the existing problem within a community, to determine who in the community can solve the problem, why they are not solving the problem and then proceeds to leverage the community's capacities and incentives to facilitate interventions aimed at scalable and sustained change (economic growth). MSD programs acknowledge that in order to achieve a change in the market that is both sustainable and scalable then they need to facilitate any change through those that exist in the market system. They only invest in systemic (widespread) changes that may achieve this.

Essentially, if one market actor is incentivized to change their behaviour, others may follow. This creates a multiplier effect and allows positive changes in the market to reach more people (SEEP, 2021). Improving the way our artisanal fisherfolk engagement in the market is an effective way of reducing their poverty and other limitations (DevLearn, 2022). Essentially, MSD provides a coherent, rigorous approach to understanding and intervening in market systems so that they function more efficiently and sustainably for poor women and men (The Springfield Centre, 2015). The poor (fisherfolk) participate in markets either as producers, consumers or providers of labour. The central idea is that they are dependent on market systems for their livelihoods. Therefore, changing those market systems to work more effectively and sustainably for the poor will improve their livelihoods and consequently reduce poverty.

The involvement of poor people in economic growth is the best way to get them out, and keep them out, of poverty (Tschumi and Hagan, 2008). While the MSD concept has been applied in Kenya's Agri-input, Dairy and Water sectors, it has been conspicuously absent from the artisanal marine fisheries sub-sector. The concept may indeed be worth exploring with respect to alleviating the poverty gripping Kenya's artisanal coastal fisherfolk.

## Conclusion and recommendations

The world is indeed changing and communities all over the world are increasingly recognizing their rights and entitlements. The research fraternity ought to be at the forefront in uplifting the lives of the destitute communities they work with. While our point of view on the use of incentives is based on our research experience with Kenya's artisanal fishing communities, we firmly believe that employing incentives can (and should) be applied to social research in any context where socio-economic deprivation is evident. We believe that appreciating research respondents in an appropriate manner will always enhance the research activity at hand. Let us stop exploiting our impoverished fishing communities (research subjects): they are actually very knowledgeable, resourceful and resilient. Rewarding them promptly every time they provide valuable research data must become the norm. We therefore need to start an open, honest conversation with all stakeholders on the modalities of just how social research incentives in Kenya can be institutionalized. Solutions to any problem begin with dialogue, so let's start talking. This is our perspective.

## References

- Ahlheim M, Börger T, Frör O (2013) The effects of extrinsic incentives on respondent behaviour in contingent valuation studies. *Journal of Environmental Economics and Policy*, 2(1):45-70 [<https://doi.org/10.1080/21606544.2012.754612>]
- Couper MP, Singer E (2009) The role of numeracy in informed consent for surveys. *Journal of Empirical Research on Human Research Ethics*, 4(4):17-26. [[doi.org/10.1525/jer.2009.4.4.17](https://doi.org/10.1525/jer.2009.4.4.17)]

- CUREC (2020) Payments and incentives in research. Central University Research Ethics Committee (CUREC) Retrieved from <https://researchsupport.admin.ox.ac.uk/files/bpg05paymentsandincentivesinresearchv10pdf>
- DevLearn (2022) Market Systems Development Online training coursebook Version 1, 87 pp Retrieved from [https://devlearn.co.uk/wp-content/uploads/2022/05/220505\\_DevLearn-Coursebook\\_MSD\\_Rev-9.pdf](https://devlearn.co.uk/wp-content/uploads/2022/05/220505_DevLearn-Coursebook_MSD_Rev-9.pdf)
- Groves RM, Couper MP (2012) Nonresponse in household interview surveys. John Wiley & Sons. [<https://doi.org/10.1002/9781118490082>]
- KMFRI (2024) Directorate of Socioeconomics Research. Kenya Marine and Fisheries Research Institute. Retrieved from [www.kmfri.go.ke/index.php](http://www.kmfri.go.ke/index.php)
- Nicolaas G, Corteen E, Davies B (2019) The use of incentives: to recruit and retain hard-to-get populations in longitudinal studies. *NatCen Social Research* Retrieved from <https://www.ukri.org/wp-content/uploads/2020/06/ESRC-220311-NatCen-UseOfIncentivesRecruitRetainHardToGetPopulations-200611.pdf>
- Olsen F, Abelsen B, Olsen JA (2012) Improving response rate and quality of survey data with a scratch lottery ticket incentive. *BMC Medical Research Methodology*, 12(1):52. [<https://doi.org/10.1186/1471-2288-12-52>]
- Pfarr K (2016) Incentives (Version 2.0). Mannheim: GESIS - Leibniz-Institut für Sozialwissenschaften [[https://doi.org/10.15465/gesis-sg\\_en\\_001](https://doi.org/10.15465/gesis-sg_en_001)]
- SEEP (2021) Market System Approaches to Food Security and Nutrition Programming | Food Security and Nutrition Network. FSN Network. Retrieved from [www.fsn-network.org](http://www.fsn-network.org)
- Setlur B (2019) Project Information Document-Integrated Safeguards Data Sheet-Kenya Marine Fisheries and Socio-Economic Development Project (KEMFSED)-P163980 (No. PIDISDSA25275, pp. 1-0). The World Bank.
- Singer E (2002) The use of incentives to reduce nonresponse in household surveys. *Survey nonresponse*, 51(1):163-77
- Singer E, Bossarte RM (2006) Incentives for survey participation: when are they "coercive"? *American journal of preventive medicine*, 31(5):411-418. [[doi.org/10.1016/j.amepre.2006.07.013](https://doi.org/10.1016/j.amepre.2006.07.013)]
- Singer E, Groves RM, Corning AD (1999) Differential incentives: Beliefs about practices, perceptions of equity, and effects on survey participation. *Public Opinion Quarterly*, 63(2):251-260. [<https://doi.org/10.1086/297714>]
- Singer E, Van Hoewyk J, Maher MP (1998) Does the payment of incentives create expectation effects? *Public Opinion Quarterly*, 62(2):152-164. [[doi.org/10.1086/297838](https://doi.org/10.1086/297838)]
- Singer E, Ye C (2013) The use and effects of incentives in surveys. *The ANNALS of the American Academy of Political and Social Science*, 645(1):112-141. [[doi.org/10.1177/0002716212458082](https://doi.org/10.1177/0002716212458082)]
- The Springfield Centre (2015) The Operational Guide for the Making Markets Work for the Poor (M4P) Approach, 2nd edition funded by SDC & DFID. Retrieved from <https://www.susana.org/en/knowledge-hub/resources-and-publications/library/details/2241#>
- Tschumi P, Hagan H (2008) A synthesis of the making markets work for the poor (M4P) approach. *UK Department for International Development (DFID) and Swiss Agency for Development and Cooperation (SDC)*.