

TERMS OF REFERENCE
AN ANALYSIS OF CLIMATE CHANGE KNOWLEDGE, ATTITUDE AND PERCEPTIONS
PROMOTING COMMUNITY BASED CLIMATE RESILIENCE IN THE FISHERIES SECTOR PROJECT
INVESTMENT PROJECT 4
STRATEGIC PROGRAMME FOR CLIMATE RESILIENCE

1. BACKGROUND

Jamaica is an Archipelagic State located in the Caribbean Sea. Sixty percent of the current population (estimated 2.7 million) resides within 2 kilometers of the coast of the mainland and a majority of the country's GDP is generated in coastal areas. A substantial portion of the population lives in rural areas and relies directly or indirectly on agriculture to sustain their livelihood. The agricultural sector employs a significant part of the work force.

Considering these physical and socio-economic attributes, Jamaica—both the hinterlands and aquatic areas (freshwater and marine)—are extremely vulnerable to climate change and climate variability. The threats include: increases in extreme rainfall events and drought; sea level rise; storm surges; more intense hurricanes; and increased temperatures and ocean acidification.

It is anticipated that this will lead to large-scale changes to the marine ecosystems with far-reaching consequences for associated livelihood activities as well as for the coastal protection provided by healthy coral reefs. The entire Caribbean region observed extremely warm sea temperatures in 2005 which caused the largest bleaching of coral reefs—an important fish nursery and habitat—in the region to date. This event wiped out as much as 70 percent of the reefs in some countries, causing the substantial decline of reef fisheries which led to appreciable losses to national economies. It is predicted that the Caribbean waters may experience declines in fish catch potential in the range of 5–50% due to warming of 2°C by 2050 and more frequent bleaching events (*Turn Down the Heat III* report, World Bank, 2014). This warming may cause a shift in the species composition of resident wild fish populations and fish species that are cultured.

Therefore, establishing effective measures to protect marine and coastal ecosystems and build resilience to climate change in the fisheries sector would be an important input in sustaining the country's economic growth and rural livelihoods.

This reality has been highlighted in Jamaica's National Development Plan, Vision 2030—the country's long-term sustainable development program. Vision 2030 recognizes the need for a

healthy natural environment and has climate change adaptation as a key outcome. Jamaica has developed a Strategic Program for Climate Resilience (SPCR) as part of the Pilot Program for Climate Resilience (PPCR) that will assist in climate-proofing the country's development. The SPCR is aligned to Vision 2030, and also builds on gaps and challenges identified in Jamaica's development strategy.

In November 2012, the PPCR Sub-Committee agreed to allocate USD 5 million in grants to Jamaica in order to further advance the objectives and implementation of Jamaica's Strategic Program for Climate Resilience (SPCR). This allocation was intended to support the Project "Promoting Community-based Climate Resilience in the Fisheries Sector", which aims at enhancing community-based climate resilience among targeted fishing and fish farming communities of Jamaica. The key outcomes expected from the Project include:

1. Strengthened and climate-smart fisheries and aquaculture policy and regulatory framework;
2. Reduced vulnerability of the targeted fishing and fish farming communities to climate shocks;
3. Diversified and strengthened livelihoods of targeted artisanal fishers and fish farmers.

The above-mentioned outcomes will be accomplished through:

Component 1: Strengthening the Fisheries and Aquaculture Policy and Regulatory Framework.

Component 2: Diversification, Alternative Livelihoods and Aquaculture for Sustainable Fisheries and Aquaculture including: i) Community-based Aquaculture, ii) Coastal Mariculture/Poly-culture, and iii) Artisanal Longline fishery for Pelagic species. And,

Component 3: Capacity Building and Awareness Raising including: i) Training, ii) Support to fishers' and fish farmers' organizations, and iii) Awareness building and behavior change.

The Promoting Community-Based Climate Resilience in the Fisheries Sector Project is to be executed over a 5-year period by the Ministry of Industry, Commerce, Agriculture and Fisheries (MICAFA).

A climate change knowledge, attitude and behavioral practice (KAP) survey conducted in 2005 revealed that there were significant gaps in the knowledge, attitudes and behavioral practices of Jamaicans, with respect to climate change. The PPCR has implemented a number of climate change awareness projects in selected communities/parishes in recent years. These surveys revealed that there is still a need for greater public awareness and education as to the current and likely impacts of climate change and appropriate adaptation strategies. Given the observed

and projected vulnerability of the fisheries sector and the social and economic fabric of fishing and coastal communities to climate change, an understanding of the awareness of fishing communities to climate change and its impact on the fisheries sector is critical.

1. OBJECTIVE OF THE ASSIGNMENT

The Consultancy will conduct a survey and analysis to understand the level of awareness, knowledge, attitude and perception towards climate change, in fishing and fish farming communities. The results will be used to design climate change knowledge and awareness programmes and a communications strategy to improve KAP in fishing and fish farming communities, thereby increasing the capability for climate change adaptation and for the building of climate change resilience in the society, environment and economy.

2. SCOPE OF WORK

In carrying out the assignment, the consultancy will utilize a combination of survey design methodologies, such as stratified random sampling, purposive sampling and/or cluster sampling and related analysis. The KAP survey shall be conducted in selected fishing and fish farming communities, with appropriate representation throughout those communities. The consultancy is also expected to carry out the assignment in accordance with international best practices for this type of undertaking.

Specific tasks under this assignment will include:

- i. Review the survey instruments and report of findings of the 2005 KAP study, and other available literature KAP surveys conducted locally;
- ii. Outline survey design, including details of methodology; sampling plan;
- iii. Design, pre-test and finalize survey instruments;
- iv. Collect data using the survey instruments designed;
- v. Analyze data and produce report with tables, charts and graphs and detailing KAP among the various target groups.
- vi. Validate survey findings in consultation with key stakeholders.
- vii. Make recommendations arising from the findings of the survey that may inform climate change education and awareness programmes and a climate change communications strategy.
- viii. Conduct any other task in keeping with international best practices
- ix. Finalize and submit the report.

3. EXPECTED DELIVERABLES AND TIMING

The expected Deliverables of this assignment are:

- a) An inception report which includes a detailed workplan, methodology, budget, sampling plan, and implementation schedule within ten working days after commencement of assignment.
- b) Literature review within fifteen days of commencement of the assignment.
- c) Survey design including survey instruments within twenty days of commencement of the assignment.
- d) A draft report documenting analysis of survey data, the findings and recommendations within sixty days of commencement
- e) Final survey report in hard copies (3) and electronic format, after receipt and adjustments based on comments of the reviewers within ninety days of commencement of the contract.
- f) Electronic file (Excel; Access) with raw data, processed data.

Deliverables	Timing
An inception report which includes a detailed workplan, methodology, budget, sampling plan and implementation schedule	Within 10 days of commencement of the assignment
Literature review	Within fifteen days of commencement of the assignment
Survey design including survey instruments	Within 1 month of commencement of the assignment
A draft report documenting analysis of survey data, the findings and recommendations	Within 2 months of commencement of the assignment
Final survey report in hard copies (3) and electronic format, after receipt and adjustments based on comments of the reviewers	Within 4 months of commencement of the assignment
Raw and Processed data in excel and access	Within 4 months of commencement of the assignment

4. PAYMENT PLAN

The payment will be made as follows:

Payment will be made upon satisfactory completion of the deliverables, the Project Manager's approval of the deliverables and the receipt of an invoice.

- First payment to be made upon contract signature 10%
- Second payment upon receipt of the literature review and the survey design including the survey instruments (15%)

- Third payment on receipt of first draft report documenting the analysis of the survey data, the findings and recommendations 15%.
- Final payment on receipt of final survey report including raw and processed data in Excel and Access 60%.

5. QUALIFICATION & EXPERIENCE

The work is expected to be carried out by a Consulting Firm, with a team comprised of lead consultant/researcher and technical consultants/researchers. The lead consultant is required to possess, at a minimum:

A post-graduate degree in **Economics, statistics, sociology or relevant branch of social sciences** with five years' experience in the design and conduct of surveys,

or

a first degree in the Social Sciences with specialized training in knowledge, attitude and behavioural practice surveys, and a minimum of seven (7) years of experience in the design conduct and analysis of surveys, preferably in the area of knowledge, attitudes and behavioural practice.

Experience in conducting surveys of this nature (i.e. social statistics, environmental protection/surveys, etc.)

Previous work in the area of climate change awareness and action planning in Jamaica or the Caribbean would be an asset.

6. SPECIFICATIONS OF THE ASSIGNMENT

Duration: The total duration of the assignment is 90 working days elapsed over four (4) months.

7. REPORTING

The Consulting firm will report to the Project Manager under the Fisheries Division (MICAF). The Fisheries Division will provide the Consultant with requisite technical support and facilitate communication with relevant stakeholders and beneficiaries if required in all stages of the implementation of the survey.

8. REFERENCES

1. Brody, A, Demetriades, J and Esplen, E., (2008) Gender and climate change: mapping the linkages -A scoping study on knowledge and gaps Prepared for the UK Department for International Development by, BRIDGE, Institute of Development Studies (IDS), UK.
2. Douglas W. Gamble, Donovan Campbell, Theodore L. Allen, David Barker, Scott Curtis, Duncan McGregor & Jeff Popke (2010) Climate Change, Drought, and Jamaican Agriculture: Local Knowledge and the Climate Record, Annals of the Association of American Geographers, 100:4, 880-893, DOI: 10.1080/00045608.2010.497122
3. PIOJ (2005), Report on Climate Change Knowledge, Attitude and Behavioural Practice Survey.
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6. <http://library.fes.de/pdf-files/bueros/fescaribe/11389.pdf>
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9. https://ppcrja.org.jm/wp-content/uploads/2018/03/WEB_The-State-of-the-Jamaican-Climate-2015-Summary-for-Policymakers-.pdf
10. <https://ppcrja.org.jm/wp-content/uploads/2017/06/Report-on-Climate-Change-Knowledge-Attitude-And-Behavioural-Practice-Survey.pdf>