Gender and fish aquaculture:
A seven country review

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Outline of presentation

- Introduction
- Review objective
- Scope
- Methodology
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- Next steps
- Parting thoughts/way forward

Introduction

- Aquaculture is gendered not only in terms of roles, but also in terms of enabling and constraining factors and multi-faceted costs and benefits

- The gendered nature of participation in and the benefits women/men derive from aquaculture affects development outcomes

- These gendered patterns need further examination and elucidation within and across contexts

Review Objective

- To identify the gendered patterns of access to and benefits from small-scale fish aquaculture within and across the WorldFish focal countries
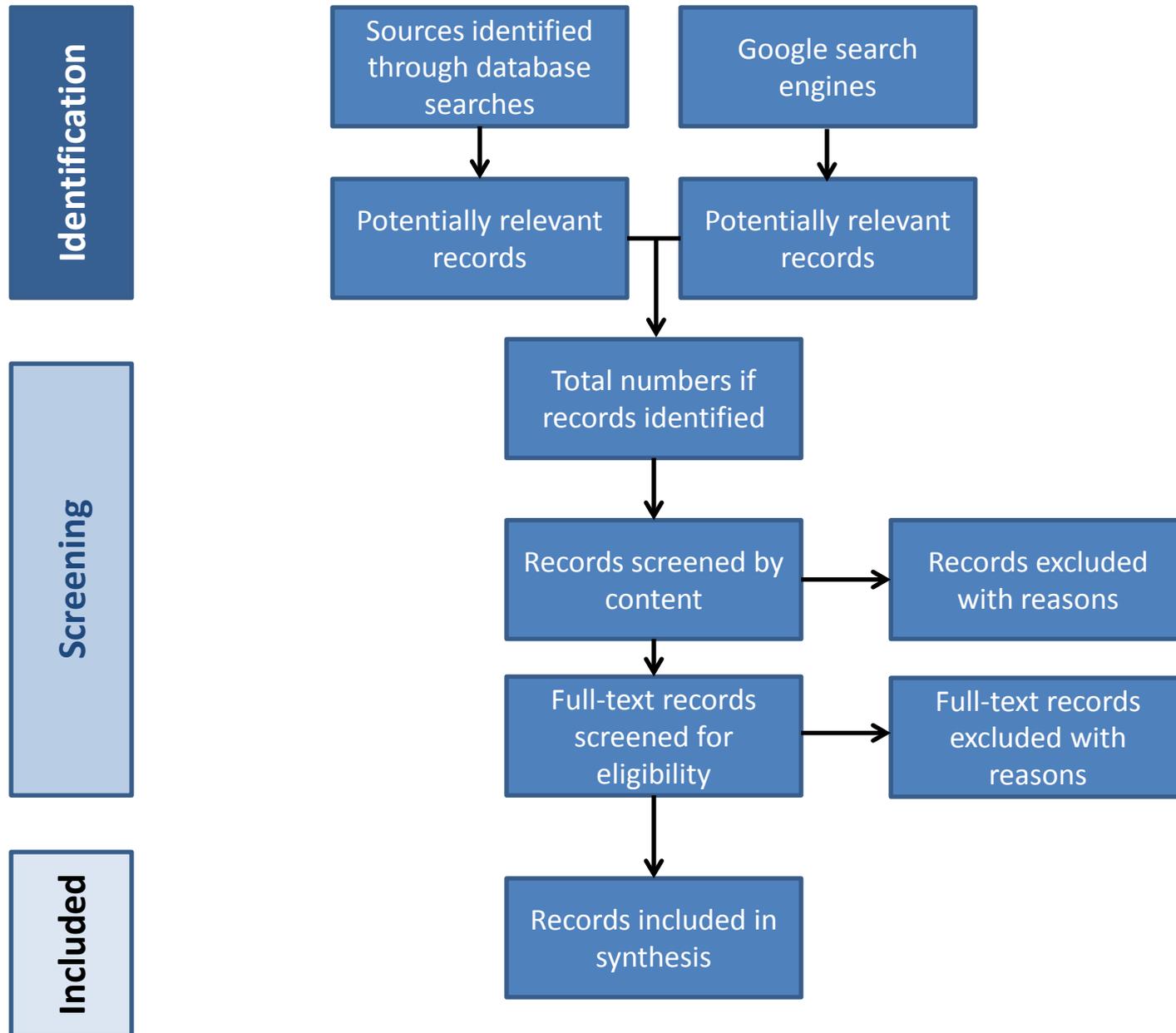
Scope

- The review was done on seven countries from Africa and Asia where people rely on aquatic resources for living: Egypt; Nigeria; Zambia; Tanzania; Bangladesh; Cambodia; and, Myanmar

- Focal countries for WorldFish

Methodology

Systematic Literature Review

- A systematic literature review attempts 'to identify, appraise and synthesize all the empirical evidence that meets pre-specified eligibility criteria to answer a given research question' (Cochrane definition, 2013).

- Grey literature was searched and included because "there is often a considerable lag in the period between research and publication and sometimes, research is never formally published" (Godin et al. 2015)

Three phases of the review

Identification

Sources identified through database searches

Google search engines

Potentially relevant records

Potentially relevant records

Screening

Total numbers if records identified

Records screened by content

Records excluded with reasons

Full-text records screened for eligibility

Full-text records excluded with reasons

Included

Records included in synthesis

* Study flow diagram adapted from Godin et al. 2015

Review

- Reviewed both peer-reviewed journal articles as well as papers from the grey literature
- A total of **444** articles were identified as being relevant to the study in the identification phase.
- The number of articles were narrowed down to 90 after further reviewing the articles and removal of duplication in the screening phase.
- The study included journal articles, papers and research reports.

Analysis

- Qualitative analysis was done using predefined categories.
- New categories that emerged were used as analytical categories

Database searches

Search process	Description
Inclusion and exclusion of study	Inclusion • The key words "gender" OR "women" and "aquaculture" were combined with each of the following terms using the operator 'AND': Egypt, Nigeria, Zambia, Tanzania, Bangladesh, Cambodia, Myanmar • Search limitations were set for journal articles published in English • Limits were set for articles published for the last 20 years (1996 to 2016) • Only articles which its full text is accessible is accepted for review (Institutional Access – USM) Exclusion: • Large scale commercial aquaculture production and processing • Aquatic species other than fish
Search engines and databases	EBSCO, Science Direct, Web of Science, Taylor and Francis, ProQuest
Cross referencing	Papers retrieved from the searches were cross-referenced with papers in its reference list so that non-identified relevant papers could be included

Google search engines

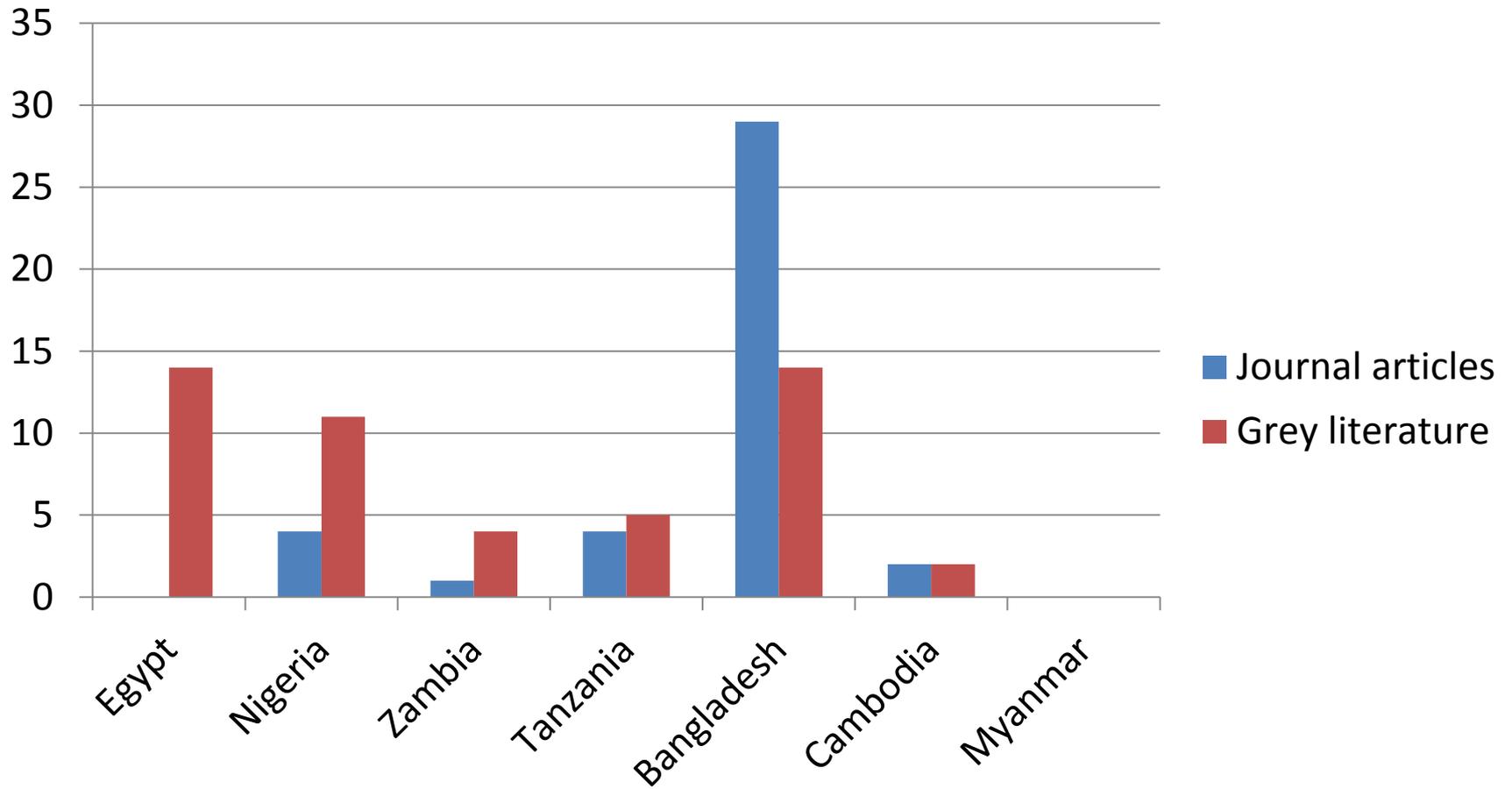| Search process	Description
Search terms and limits	Inclusion • The key words "gender" OR "women" and "aquaculture" were combined with each of the following terms using the operator 'AND': Egypt, Nigeria, Zambia, Tanzania, Bangladesh, Cambodia, Myanmar • Search limitations were set for journal articles published in English • Limits were set for articles published for the last 20 years (1996 to 2016) Exclusion: • Large scale commercial aquaculture production and processing • Aquatic species other than fish
Search engines and databases	Google Scholar and Google Search
Cross referencing	Papers retrieved from the searches were cross-referenced with papers in its reference list so that non-identified relevant papers could be included

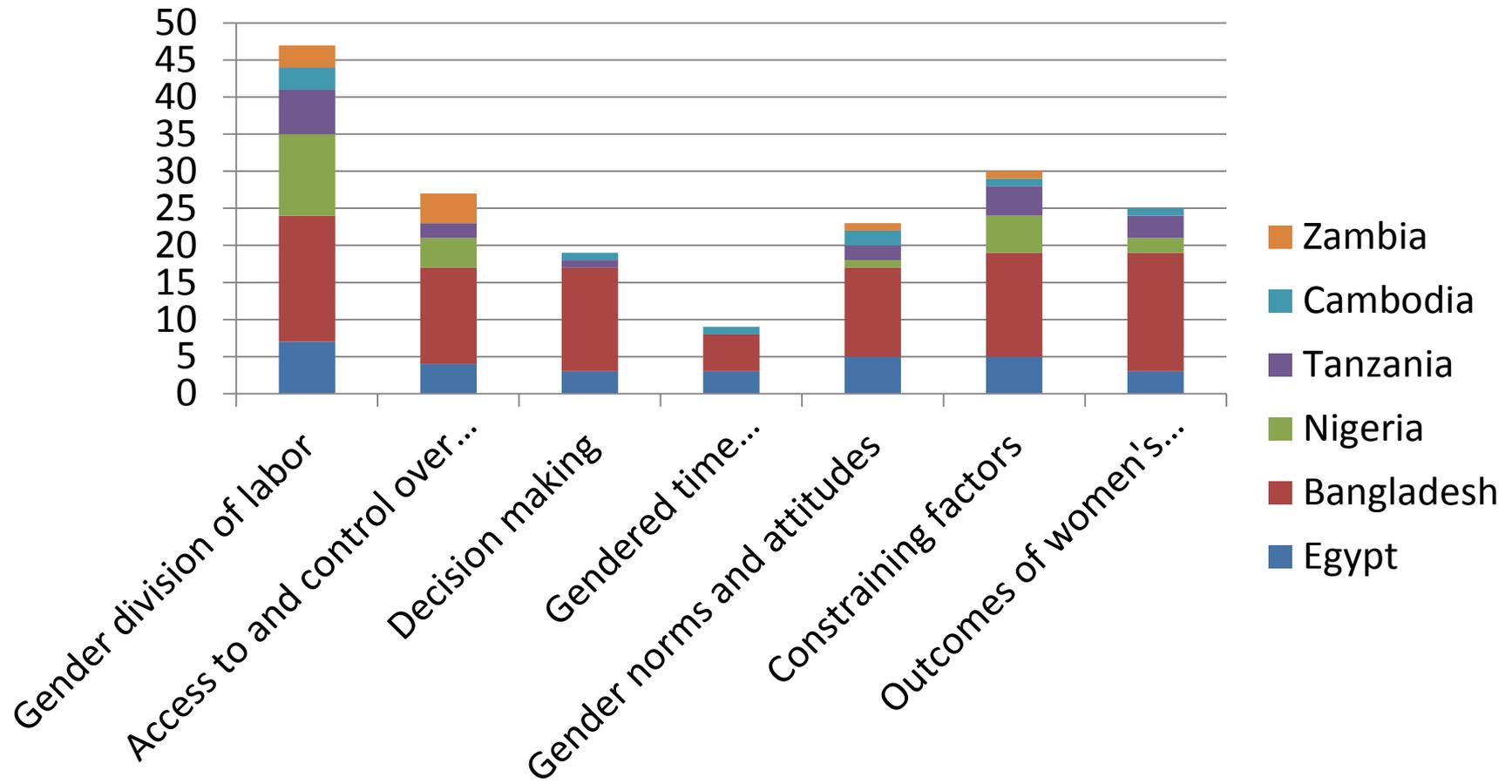| Country	Database/Search engine	Paper retrieved (Identification)	Paper Eliminated (Screening)	Total accepted for review
Egypt	Scientific database	7	7	14
	Google scholar/search/reference list	62	48	
Bangladesh	Scientific database	112	83	43
	Google scholar/search/reference list	117	103	
Nigeria	Scientific database	33	29	15
	Google scholar/search/reference list	18	7	
Tanzania	Scientific database	36	32	9
	Google scholar/search/reference list	18	13	
Cambodia	Scientific database	8	6	4
	Google scholar/search/reference list	11	9	
Zambia	Scientific database	3	2	5
	Google scholar/search/reference list	19	15	
Myanmar	Scientific database	0	0	0
	Google scholar/search/reference list	0	0	

Research Questions:

1. What is the state of literature on gender and fish aquaculture by country?

2. What are the key emerging insights across the countries?

Findings

RQ1 a) State of the literature on gender and fish aquaculture by countries

RQ1 b) State of the literature on gender and fish aquaculture by categories and countries

RQ2 Key emerging insights across countries (Similarities across countries)

- Gender division of labor
  - Men tend to dominate fish production, women tend to process and market
- Women have challenges in accessing resources
  - Bangladesh: Access to land, high quality inputs, aquaculture technologies, information & knowledge
  - Nigeria: Access to pond/land, capital to purchase inputs, training, quality water
  - Tanzania: Access to pond/land, resources to farm fish, extension services, information
  - Zambia: Access to pond/land
- Women have similar constraining factors
  - Main constraints: **time due to household responsibilities;** ownership and access to land, capital, and other resources; access to market; prohibition regards to mobility; education, knowledge and skills; access to extension services

RQ2 Key emerging insights across countries (Gaps)

- Literature seems to address gender as representing men and women's roles and responsibilities and differences

- Few studies went further to discuss the underlying reason for these gendered roles and responsibilities within the context of study and/or use theories to explain their findings.

Next Steps

- Continuing and completing analysis
  - Revise or add additional categories or angle of analysis

Parting thoughts/Feedback on the way forward?

- Work in progress
- Any thoughts on whether these categories seems to work?
- If there are any other priority angles or categories to break these down further?

Thank You