Stakeholder analysis: drawing methodological lessons from review of relevant literature

Student: Ruth Henwood (HNWRUT001)
Supervisor: Lucy Gilson

University of Cape Town

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DECLARATION

MPH (Health Systems) Mini-Dissertation

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DEDICATION

This study is dedicated to the stakeholders, obvious and neglected, who strive toward the achievement of pro-poor health policy reform.

ABSTRACT

Stakeholder analysis (SHA) is an important tool in policy analysis, used to understand the actors who are affected by or have an effect on a particular policy. Its implementation spans a variety of sectors from government to corporate, and conservation to health. The widespread application of SHA naturally causes some confusion with regards to terminology and methodology, but also serves as an opportunity for cross-sectoral and cross-discipline learning. This mini-dissertation discusses methods used to conduct stakeholder analyses (SHAs). It presents, first, the results of a broad scoping review investigating SHA methods described in 28 articles outside the health sector spanning low, middle and high income geographical regions. This scoping review, together with the seminal Varvasovszky and Brugha (2000) health policy SHA guide is, second, used to inform a systematic review – that entails a more critical assessment of the application of SHA across 21 articles addressing the use of SHAs within health policy analysis work undertaken within low to middle income country (LMIC) settings.

A variety of methodological approaches to SHAs are used outside of the health sector, including creative ways to generate information in collaboration with SHs, as well as to present SHA findings. Future health policy analysts and researchers would do well to look outside the health sector for more creative and participative data collection and presentation approaches. Notwithstanding the widespread citing of Varvasovsky and Brugha (2000) across health policy SHAs, many of the articles were

found wanting in their reflection on key issues presented by Varvasovsky and Brugha (2000). Health policy SH analysts and researchers should consider the use of a two-step SH identification strategy in order to include a greater variety of SHs; offer reflection on their own role within the process of focus and the potential impact of this on the analysis; as well as expand on how context is accounted for in the SHA process, rather than just describing it.

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And finally to my children Ella and Ilan, I have missed many opportunities to cuddle and play; it's time to make up for that!

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PREAMBLE

PART A PROTOCOL

INTRODUCTION

The World Health Organisation (WHO) describes health systems as comprising of six spheres or building blocks: service delivery, health workforce, information, medical products, vaccines and technologies, financing, and leadership/governance (WHO 2007). Together, these building blocks fulfil the ultimate goal of any health system: to improve the health of the people it serves. Policy, defined by Buse et al. (2012, p.5) as a "broad statement of goals, objectives and means" and in particular, health policy, acts as the catalyst that drives the "action (and inaction)" (Buse et al. 2012, p.6) of these building blocks, and thus the health system itself.

What is health policy analysis?

The policy process is a complex one, consisting of numerous, non-linear stages. Various frameworks have been developed in an attempt to give structure to our understanding or conceptualisation of the policy process, while acknowledging that such frameworks are not representative of real-world experience. The most widely used public policy framework is the stages heuristic framework (Walt et al. 2008), which breaks the policy process up into four stages: problem identification and issue recognition, policy formulation, policy implementation and policy evaluation (Walt et al. 2008). Health policy analysis (HPA) assesses these processes and may be used to consider how they impact on the functioning of a health system or how to strengthen future policy change (retrospective analysis of policy), or predict the potential policy impacts (prospective analysis for policy) (Buse et al. 2012). However, policy analysis tends to focus on particular health policy goals, strategies to achieve these goals, and outcomes; i.e. the content of policy (Buse et al. 2012).

Buse et al (2012) call for HPA to consider the politics involved in health policy processes by going beyond the 'what' questions regarding content, to include inquiry into the 'who' and 'how'. The role of politics in health policy processes was recognised by Walt and Gilson (1994) who argued the importance of examining the role of actors, process and context on policy. As described by Walt (1994), health policy is "concerned with who influences whom in the making of policy, and how this happens" (Walt 1994, p.1). Health policy cannot be divorced from the political context in which policy actors leverage their power and influence to manipulate other actors and the process. Walt and Gilson (1994) developed the policy analysis triangle

(Figure 1) in an attempt to provide analysts and researchers with a framework to better understand the policy process (Walt and Gilson 1994).

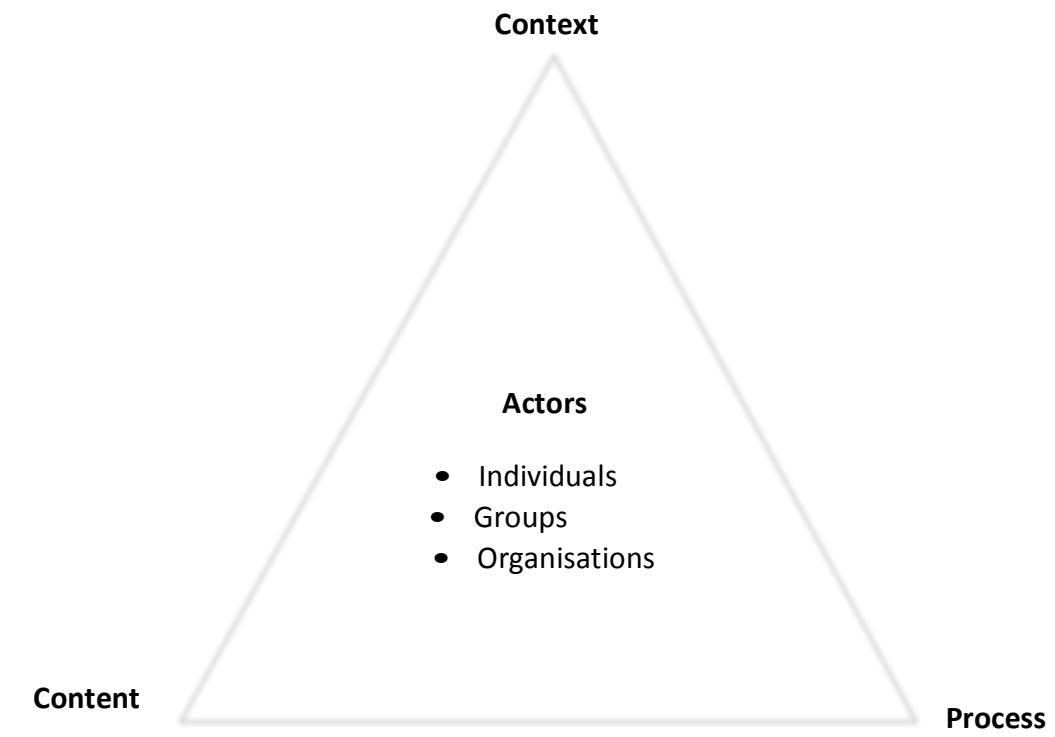

Figure 1: Policy analysis triangle
Source: Walt and Gilson (1994)

The role of actors in health policy analysis

The four aspects of Walt and Gilson's (1994) health policy triangle: content, context, process and actors are an attempt to simplify an otherwise complex process for ease of reference. It does not suggest that each aspect is independent of the other, but rather comes with the caveat that they are interrelated and must be considered so when analysing health policy. Buse et al. (2012) go on to explain the interrelatedness of each, noting that at the heart of the policy process lie policy actors with the power to make or influence policy action or inaction.

This proposed synthesis research aims to hone in on a particular method of accounting for the impact of policy actors, namely stakeholder analysis (SHA). Used

to better understand the role of actors and influencing factors within the policy process, SHA is a tool that also considers the "political viability of new policy proposals" and can generate ideas about "political management strategies to support policy change" (Gilson et al. 2012, p.i65). Whether policies are being analysed prospectively or retrospectively, Buse et al. (2012) maintain that the analysis of policy change must always include analysis of the relevant stakeholders, or stakeholder analysis (SHA). However, SHA is but one policy analysis tool specifically focused on better understanding the role of policy actors (Brugha and Varvasovszky 2000). For a more holistic policy analysis SHA should be balanced with other approaches that assess different policy aspects such as content, context and process, as represented by Walt and Gilson's (1994) policy analysis triangle.

The influence that actors or stakeholders have on policy is widely recognised. Actors are key to progressing or stalling policy change or development (Walt and Gilson 1994). Policy actors, henceforth referred to as stakeholders, can be individuals, groups or organisations with a significant interest in a policy, who may be impacted by the success or failure of a particular policy, or who are part of the policy process. While there may be many policy stakeholders, they can be broadly grouped into two categories, state and non-state stakeholders, with the primary difference between the two groups being that non-state stakeholders such as civil society organisations, are not in pursuit of formal political power, but rather seek to influence those with formal political power (Buse et al. 2012). The level of power held by stakeholders, and how this power is utilised, determines the extent to which they influence health policy (Buse et al. 2012).

What is stakeholder analysis?

SHA is the "process of systematically gathering and analysing qualitative information to determine whose interests should be taken into account when developing and/or implementing a policy or program" (Schmeer 1999 p.3). Actors' level of power and influence, as well as the extent to which they may be affected by a policy, influence their stance in relation to the policy. This information is then used to assess whose interests should be considered in policy change processes. Factors that shape actors' behaviour such as their knowledge of and interest in a policy, position for or against a policy and potential alliances with other stakeholders, as well as their power relative to other actors (Schmeer 1999) are evaluated through the SHA process and used to develop strategies to manage these stakeholders. Policy scientists concerned with the power of stakeholders in policy decision-making adopted SHA from the organizational and management sciences to better understand stakeholders' roles in policy processes (Brugha and Varvasovzsky 2000).

The need for research synthesis on SHA methodologies

Just as SHA is but one tool of policy analysis, so are there multiple approaches to conduct a SHA. Methodological considerations require attention to, among other things, purpose, time frame, context, resources, data collection methods and level of analysis (Varvasovszky and Brugha 2000). Whilst the potential value that SHA can contribute towards a comprehensive health policy process is well understood, Varvasovszky and Brugha (2000) caution that biases and uncertainties exist which requires careful consideration of the methods used to conduct a SHA. Bearing in mind that the rigour and usefulness of SHA is dependent on the use of sound,

appropriate methods, we wish to explore the methods with which this policy analysis tool is being applied in health policy processes. To this end a systematic literature review will be undertaken.

How this research synthesis will be conducted

Ordinarily, systematic literature reviews seek to "bring research closer to decision-making" (Thomas and Harden 2008, p.2) by synthesizing and disseminating key findings across a range of reliable research to better inform evidence-based practice (Victor 2008). Observing the call for "more explicit focus on the methods for doing policy analysis" (Gilson et al. 2008, p.292), this systematic review will focus on extracting and describing various SHA methods, as opposed to research outcomes. This review will be conducted in two stages; a scoping review followed by a systematic review. Brugha and Varvasovszky's (2000) SHA review noted the growing popularity of the use of SHA across various fields in the late 1990's: in management where it originated, but also branching out into development and health policy sectors. In response they produced an article guiding health policy analysts on the use of SHA (Varvasovszky and Brugha 2000). As stated above this research synthesis will review the application of SHA methods within HPA, drawing on Varvasovszky and Brugha's (2000) guide. In order to better inform this review and support a more critical analysis of how SHA methods have evolved since 2000 when Varvasovszky and Brugha published their guide, a scoping review will first be undertaken to map the implementation of SHA methods in other fields such as management and development. Whilst the scoping review will focus on breadth in terms of examining SHA methods across multiple sectors in order to provide an overall understanding of

what SHA methods are being employed, the systematic review will focus on extracting depth of information specific to health sector SHA methods. The justification for this 2-stage approach is that the use of SHA in other policy fields may offer lessons for health policy, and the scoping review could then serve to focus the systematic review; therefore the systematic review question stated below may change depending on the outcome of the scoping review. For the sake of clarity, parts of the following outline of the review methods will be discussed under the separate sub-headings of scoping and systematic review respectively.

BACKGROUND

Review question

Scoping review: *"How is SHA being conducted and applied since 2000 outside of the health sector?"*

Systematic review: *Taking into account Varvazovszky and Brugha's (2000) guide to SHA as well as findings from the scoping review, how rigorously has SHA been applied in health policy analysis in low to middle income countries since 2000?*

Objectives of review

Scoping review: Objectives

To identify, synthesise and describe the methods used to conduct SHA outside the health sector in order to inform critical appraisal of health policy SHA methods.

Systematic review: Objectives

To identify, synthesise and critically analyse the application of SHA in health

policy analysis in low to middle income countries, drawing on Varvasovszky and Brugha's (2000) SHA guide as well as findings from the scoping review.

Justification of review

It has been more than 20 years since Walt and Gilson (1994) developed the health policy triangle, challenging policy analysts to go beyond analysis of the 'what' or content of policy, but to consider the 'who' and 'how' as well. In 2000 Varvazovszky and Brugha offered health policy researchers and actors a guide on how to do SHA, a policy analysis approach specifically designed to consider the 'who', as well as actors' influence (power), position and interest. However, Gilson and Raphaely (2008) note the continued failure of the health policy literature to draw on policy analysis theory to guide analysis, or to formally assess the role of power in policy reform. In a 2008 special edition of Health Policy and Planning, Gilson et al. (2008) called for more "methodological diversity within policy analysis" and suggested looking at benefits and limitations of different policy analysis methods used in other sectors (Gilson et al. 2008, p.292).

In this research, the scoping review will be used to map implementation of SHA approaches outside the health sector, including, but not limited to management sciences where stakeholder theory – the concept that business is not only accountable to its shareholders, but also to its stakeholders and thus needs to consider "any group or individual who can affect or is affected by the achievement of the firms' objectives" – originated (Morphy, 2017). This scoping review will precede the systematic review and will support an account of a descriptive map of SHA methods employed by a range of sectors. This map, together with Varvasovszky and Brugha's

(2000) guide to conducting SHA for HPA will then be used to inform the systematic review – a critical assessment of HPA SHA methods to generate methodological insights, which health policy analysts can draw on for future use.

METHODOLOGY

Approach to the review – Scoping review and systematic literature review

The synthesis of qualitative data in health research is relatively new, but, as demonstrated by Gilson and colleagues in their 2014 series of qualitative research synthesis for HPA in the Health Policy and Planning journal, this form of research shows promise in supporting HPA with new and insightful ideas that individual studies in the field are unable to yield (Gilson 2014). This research synthesis, however, differs from traditional qualitative syntheses insofar as traditional syntheses aim to synthesise study findings (Bearman and Dawson 2013). As alluded to in the Background section, this research will synthesise and describe methods used to conduct SHA, and not research findings or outcomes pertaining to SHA processes.

The first step is to conduct a scoping review. According to Arksey and O'Malley (2005, p.4) scoping reviews "aim to map rapidly the key concepts underpinning a research area and the main sources and types of evidence available". The insights gained from this scoping review on SHA methods used in various disciplines will inform the systematic review, which will focus particularly on SHA methods used within the health policy sector. The scoping review process will be informed by the same principles of rigour and transparency that underpin systematic literature reviews, and will be guided by five steps as outlined by Arksey and O'Malley (2005):

1. Identifying the research question
2. Identifying relevant studies
3. Study selection
4. Charting the data
5. Collating, summarising and reporting the results

A descriptive (as opposed to critical) analysis approach will be adopted when reporting on the results of the scoping review. This will be elaborated on in the data synthesis and analysis section of this proposal. The scoping review outcomes will be used to inform the way in which the rigour with which health sector SHA methods is applied, which is considered in the systematic review.

A systematic literature review seeks to synthesise research in a systematic, transparent and reproducible way (Tranfield et al. 2003). As pointed out by Dixon-Woods et al. (2006), a Cochrane review is but one methodological approach to tackling systematic reviews, which can be systematic without having to comply with Cochrane review criteria. What is expected of a systematic review is a well-defined method to searching, synthesizing and interpreting literature, with each step documented so that others may achieve replication of the process. This review will stay true to the aspirations of a systematic review, without becoming a narrative review, where the search strategy is undefined (Aveyard 2007).

SHA methods that are identified in the systematic review will be critically analysed according to findings from the scoping review as well as Varvasovszky and Brugha's (2000) SHA guide. This guide breaks down the SHA process into two stages: preparing and conducting the SHA. In the preparation stage, the following factors need to be considered:

- The purpose and time dimension of interest
- Time-frame and available resources
- The context and level of analysis (ranging from local to international)

In conducting a SHA different factors are considered using a variety of methods:

- The composition of the SHA team, e.g. internal or external, team or individual
- The manner in which stakeholders are identified and approached, e.g. purposive or snow-ball sampling, focus group discussions (FGD) or one-on-one interviews
- Data collection sources and methods, e.g. primary or secondary sources, qualitative or quantitative data
- Organisation, analysis and utilisation of data, e.g. actor maps or matrices, thematic or grounded theory, to manage stakeholders or to inform policy reform

Literature search strategy

A thorough and comprehensive search strategy distinguishes a systematic review from a narrative one (Aveyard 2007; Tranfield et al. 2003). As part of ensuring an in-depth search strategy, this study includes the use of two reviews: scoping and systematic (as discussed above). Both reviews will follow a thorough and comprehensive search strategy but will differ in terms of the breadth of sectors included in the literature search.

Both reviews will draw literature from electronic bibliographic databases which use indexing systems of controlled keywords (known as thesaurus terms or subject headings) to categorize stored literature (Dixon-Woods et al. 2006). These thesaurus terms, guided by the review question and objectives, will be used to efficiently search for literature describing the methods used in conducting SHA. For the purpose of the scoping review, only literature describing SHA methods outside of the health sector will be considered. The systematic review, in turn, will include search terms that limit

the search to the application of SHA within the health policy sector alone.

Boolean operators 'AND' and 'OR' will be used in between a string of thesaurus terms to locate all possibly relevant articles. 'AND' is used to locate articles that contain both thesaurus terms, whilst 'OR' is used to find articles that report on either term (Akobeng 2005). A broad, sensitive search focused across sectors will define the scoping review, which will be followed by a narrow, specific systematic review, focused on the health sector.

An electronic search of two relevant databases will be undertaken: Scopus and PubMed. Scopus will be used in particular to inform the scoping review. It is the biggest abstract and citation database, with "over 21,500 peer-reviewed journals covering the fields of science, technology, medicine, social sciences, arts and humanities" (www.scopus.com). Due to its scope, the researcher believes that it will offer a comprehensive set of articles in response to the thesaurus search terms. In order to ensure a more specific search of health literature in particular, PubMed will be searched to catch any health-related literature that may not have been found in Scopus. PubMed provides open access to MEDLINE database of indexed citations and abstracts to, among others, medical, nursing, dental and health care journal articles. It also includes extra life sciences journals that are not found in MEDLINE (https://.nlm.nih.gov/services/pubmed.html, last reviewed 11 January 2016).

For the systematic review all cited articles will be originally sourced so as to mitigate the risk of misinterpretation that can occur when citing secondary sources of literature found in primary sources (Aveyard 2007). Both reviews will only investigate articles published in peer-reviewed journals. Systematic literature reviews usually

call on the judgment of more than one reviewer in order to ensure rigorous critical appraisal of the literature reviewed, as well as to ensure its relevance to the review question (Aveyard 2007). However, this research is being undertaken as part of a Master's degree, and involves only one researcher. Therefore, only published literature will be considered as it has already undergone a rigorous peer review process. Peer-reviewed articles not uncovered from Scopus and PubMed database searches, but cited in articles attained from these database searches may also be included in either scoping or systematic reviews if such articles are found to add significant value to the reviews. For the sake of transparency these articles will be differentiated from articles obtained from the database search by acknowledging this fact, stating their origin and justifying their inclusion.

Literature search phase 1: Scoping review

The scoping review will be used as a "technique to map existing literature in the field of interest" (Arksey and O'Malley 2005, p.4) i.e. the use and application of SHA in outside the health sector. The first step in conducting this scoping review will be to search for articles that report on the use of SHA to analyse a policy or implement a programmatic intervention. The search strings 'stakeholder analysis' AND 'policy' AND ('actor' OR 'stakeholder' OR 'interest group') AND ('power' OR 'decision making' OR 'influence') will be used to search for published articles in the Scopus database. The search will be limited to literature published since 2000, which is when Varvasovszky and Brugha first published their guide to SHA in health policy processes. This phase one search will include policy processes from a range of disciplines and sectors, with the exception of health.

Literature search phase 2: Systematic review

The systematic literature review will follow on from the scoping review, but focus specifically on the health sector. Any articles describing the application of SHA within the health sector that may have been found in the scoping review search will be put aside and reviewed along with articles from the systematic review search of Scopus and PubMed. PubMed will be included as a database for this search in order to ensure relevant health or medical literature is uncovered. The search string 'stakeholder analysis' AND 'health' AND ('policy' OR 'health policy)' AND 'implementation' AND ('actor' OR stakeholder OR 'interest group') AND (power OR 'decision making' OR influence) will be searched. The inclusion of implementation is to pick up a range of relevant health specific work. As with the scoping review, English-language, peer-reviewed journal articles dating from 2000 will inform the initial search limitation.

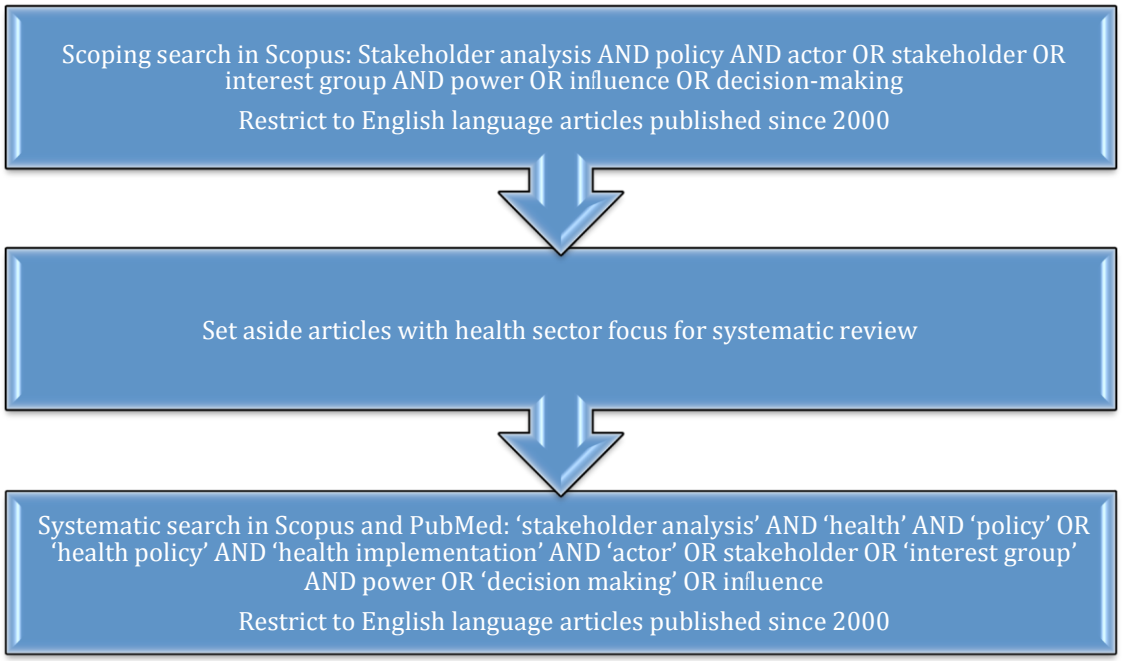

Fig. 3 Summary of literature search strategy

Article inclusion/exclusion criteria

As noted above, the scoping review will consider articles that meet the following criteria:

- Articles published in peer-reviewed journals
- English-language articles published since 2000, although older articles cited in these papers that contribute significantly to answering the overall question or place the current literature within a particular context may also be considered.
- Qualitative, quantitative or mixed-methods articles
- Articles that describe methods used in the application of SHA across a variety of sectors

The scoping review will exclude articles based on the following criteria:

- Unpublished or grey literature
- Articles that describe methods used in the application of SHA within the health sector
- Articles that only describe the outcomes of a SHA, but that do not offer a description of the methods used to conduct the SHA

This systematic review will include:

- Articles published in peer-reviewed journals
- English-language articles published since 2000
- Qualitative or mixed-methods articles
- Articles that describe methods used in the application of SHA to analyse health policy processes

The systematic review will exclude:

- Articles that only describe the outcomes of a SHA, but that do not offer a description of the methods used to conduct the SHA
- Articles that describe the application of SHA to a health programme or intervention as opposed to a health policy in order to keep the focus on health policy analysis specifically
- Articles published before 2000
- Unpublished/ grey literature

Article selection and data extraction

The first step in article selection will be to remove duplicate articles. The remaining articles' abstracts will then be read to filter out any that are obviously not suited to the aims of the study. The final set of articles will be read in full, with particular attention paid to descriptions of the SHA process and methods. A preliminary data extraction table will be used to assist the researcher in teasing out this pertinent information and highlighting where it may be lacking. This process will apply to both scoping and systematic reviews. Articles that do not adequately describe the methods of SHA will be discarded. Beyond that, articles will be selected according to the inclusion and exclusion criteria as outlined above. Before final selection, the articles' relevance to either the scoping or systematic review will be assessed and triangulated with the supervisor.

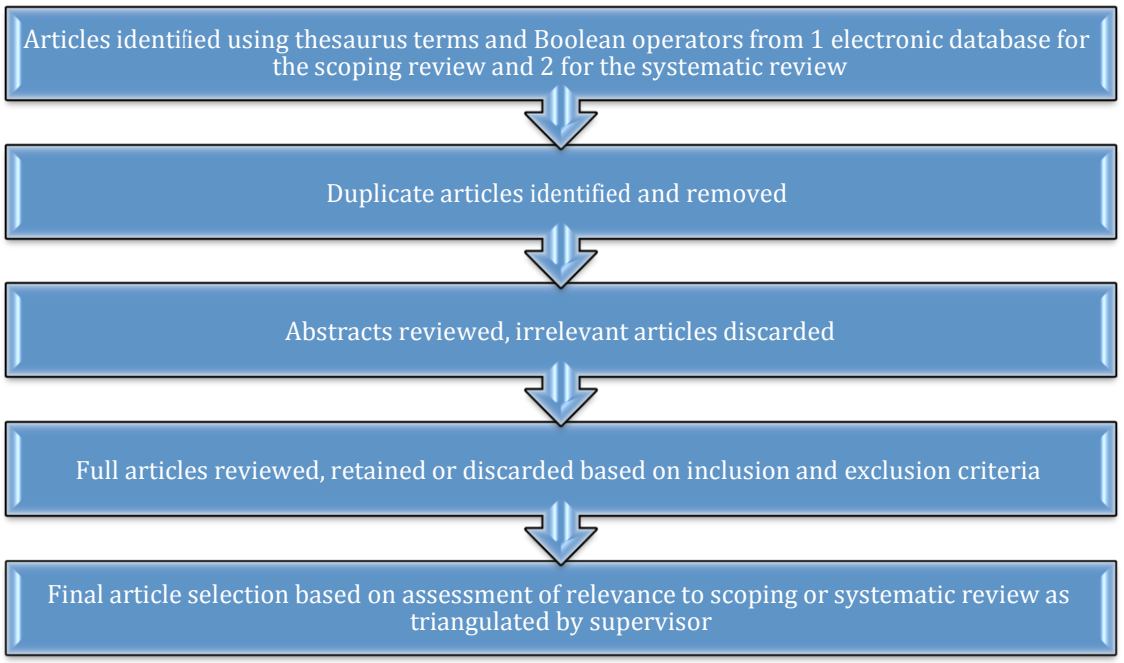

Figure 4. Article selection process
Source: Author

Quality appraisal

The Critical Appraisal Skills Programme (CASP) appraisal checklist (CASP 2004) is commonly used to appraise the quality of articles' research methods before inclusion in a systematic review. However this research synthesis does not seek to synthesise research findings or outcomes but, instead, will consider the methods used to conduct a SHA. As such, articles will be scanned for evidence that sheds light on SHA methodologies, rather than focusing on the quality of the article that will be under review. Therefore the quality of the research paper will not be determined by a checklist in order to validate or discredit the findings, but by the extent to which SHA method is described in the article. Those articles that fail to describe particular methods used to undertake a SHA will be deemed inappropriate for inclusion (as discussed under inclusion/ exclusion) and will be discarded.

Data extraction

According to Thomas and Harden (2008) extracting data from qualitative studies is a more trying process than extraction of quantitative data as it can be difficult to define what are qualitative data. In their case, Thomas and Harden (2008) extracted data from the results or findings sections of papers. For both scoping and systematic reviews, the SHA process may not be the focus of the article under review, but just one of the steps described in a particular policy analysis. Furthermore, some articles may focus on the outcome of the SHA process, and not on the methods used to conduct the SHA. In such instances, to merely extract data from the findings or

results sections will not shed light or allow synthesis of appropriate information. Instead we will seek to look across articles for explanation and discussion of the methods used to conduct a SHA.

In order to organize data extracted from multiple articles and across multiple fields (in the case of the scoping review) and to clearly present and succinctly summarise this information, data extraction tables will be utilised. Separate tables will be designed for the scoping and systematic reviews. Typically with systematic reviews, the data extraction tables provide an outline of key findings, but for this review they will outline key methods associated with SHA processes across articles. In addition to drawing out pertinent insights regarding SHA methodologies, this process will allow the researcher to build a sound understanding of the articles and different SHA methods described in each one (Aveyard 2007). A broader understanding of the range of SHA methods that exist will support the critical analysis of SHA methods reviewed for the systematic review and will foster richer interpretation and analysis of these methods.

Scoping review: data extraction

An initial data extraction table will be used for the scoping review to ensure appropriate selection of articles and to draw out the SHA methodologies discussed (see Fig. 5). The table will guide the researcher to look for and extract general article information, as well as more specific information regarding the rationale for and methods of SHA. This step in the data management process will quickly highlight articles that do not meet the inclusion criteria in terms of describing SHA methods.

Article title, authors and journal	
Sector	*Natural resource management*
Policy or programme focus	*Scarce natural resources*
Stage of policy/ programme	*Retrospective*
SHA rationale/ reasoning	*To assess impact of policy on stakeholders*
SHA methodology/ approach	*Participative workshop, focus group discussion, snowball sampling etc.*

Figure 5. Scoping review data extraction table

Bearing in mind the iterative process used to develop a comprehensive understanding of the literature and issues of interest (SHA methods, in this case) the table may be reviewed following initial data extraction to allow for a more detailed description and categorization of methodological approaches to SHA. In this instance a new, second table will be developed with the aim of searching for and extracting more specific details linked to SHA methodology.

Systematic review: data extraction

Where the scoping review data extraction table allowed for data from various sectors, the systematic review data extraction will focus specifically on health sector SHA methods. Secondly the systematic review data extraction will be guided both by the Varvasovszky and Brugha (2000) guide to SHA and by what emerges from the

scoping review. As the scoping review has not yet been conducted, its contribution to the extraction table cannot be detailed here. However the researcher will be expected to look for and extract detail that speaks to the following SHA recommendations offered by Varvasovszky and Brugha (2000):

- The purpose and time dimension of interest
- Time frame and available resources
- The context and level of analysis (ranging from local to international)
- Composition of the SHA team
- How stakeholders are identified and approached
- Data collection sources and methods
- How this data is organized, analysed and utilized

DATA SYNTHESIS AND ANALYSIS

Traditionally interpretive and integrative synthesis is associated with either qualitative or quantitative research respectively, where integrative synthesis combines data and interpretive synthesis develops theories to further explain concepts that emerge from the data (Dixon-Woods et al. 2005). Dixon-Woods et al. (2005) elaborate on this traditional distinction and caution against strict association of integrative with quantitative and interpretive with qualitative data only. According to them, integrative synthesis is focused on summarising data under commonly understood and "well specified" concepts, whilst interpretive synthesis is concerned with developing concepts and theories to "integrate those concepts" (Dixon-Woods et al. 2005, p.46). Despite drawing largely on qualitative and mixed-methods articles, this synthesis research aims to describe the range of SHA methods, so as to inform HPA practices. It will do so under concepts commonly associated with the practice of SHA, such as the identification and classification of stakeholders. While the scoping review will describe, group and quantify SHA

methods that emerge across different sectors outside of the health sector, the systematic review will contain elements of interpretation. The researcher will offer comment and analysis of contrasts and links found between SHA methods used outside the health sector and those used within HPA, whilst also drawing on Varvasovszky and Brugha's (2000) guide to SHA. The separate data analysis approach of each review is discussed in more detail below.

Scoping review: data synthesis

Concepts associated with SHA will be drawn from each scoping review article to populate data extraction tables. These concepts will be compared and contrasted across articles and sectors. However, instead of interpretation and discussion of why some SHA methods were used over others, as advised by Aveyard (2007), data synthesis will be limited to describing the various methods used, as discussed by Dixon-Woods et al. (2005). The data will be described as well as presented in table format, offering the reader a clear picture of the range of articles, the various sectors that employ SHA approaches, how many articles were found under each sector, the SHA methods used, their frequency of use (typical verse atypical methods), and which sectors used them. This description will be used to compare divergent and similar SHA methods that emerge from the systematic review, and thus allow for a more informed analysis of the SHA methods used within HPA.

Systematic review: data synthesis and analysis

As stated above, there will be some interpretive synthesis in this review, but it will remain largely integrative. Interpretation will draw on the narrative summary approach, a synthesis method typically used to relate an account of the evidence on

a continuum of simple description to deeper-level analysis or "reflexive account" (Dixon Woods et al. 2005, p.47). In the case of this systematic review, narrative summary will be applied to produce an account of HPA SHA methods with some interpretation of the rigour with which these methods have been applied offered in order to inform health policy analysts and researchers work in this field.

"Narrative summary can 'integrate' qualitative and quantitative evidence through narrative juxtaposition –discussing diverse forms of evidence side by side" (Dixon Woods et al. 2005, p.47). The evidence that will be discussed 'side by side' in this systematic review will be SHA methods described outside the health sector and SHA methods used in HPA. The inclusion of Varvasovszky and Brugha's (2000) SHA guide in that discussion will further add to the diversity of the 'evidence' discussed, as well to the depth of the analysis of comparisons or similarities. This process will be used to assess the rigour with which SHA methods are employed in health sector policy processes.

ETHICAL CONSIDERATIONS

The researcher acknowledges her ethical obligation to compile a trustworthy, comprehensive and relevant study that contributes to health policy processes' best practice when conducting SHA.

This study is based on pre-published research and literature and does not seek to generate primary data. It therefore does not need to take formal ethical or confidentiality procedures into account, other than to strive to ensure all data collected is sourced and credited accordingly.

STUDY LIMITATIONS

The first limitation to note is that the research review will be conducted by only one researcher. This restricts triangulation capacity in terms of article appraisal and data analysis. In an attempt to mitigate this potential bias, only articles published in peer-reviewed journals will be included. Further, the researcher will rely on her supervisor for validation of steps taken throughout the research review process.

The second limitation is that only English language literature will be included in the review. This limitation cannot be avoided due to time and resource constraints that are not conducive to translation and interpretation

The final limitation is that only published literature will be included. This makes the research vulnerable to publication-bias (Aveyard 2005; Tranfield et al. 2003) that sees articles showing desirable outcomes being published more frequently than articles that show an un-desired outcome.

TIMELINE

Table 1: Review timeline

COMPONENT	ACTIVITY	DATE
PART A: Protocol	Topic chosen	January 2015
	Draft	December 2015
	Edits	January/ February 2016
PART B: Literature Review (Scoping Review)	Research	July 2015 to February 2016
	Draft	February 2016
	Edits	07-27 March 2016
	Final edits	28 Mar-03 April 2016
PART C: Journal Article (Systematic Review)	Data extraction table	07-20 March 2016
	Drafts	21 March – 40 April 2016
	Final edits	04-17 April 2016
DISSEMINATION/ SUBMISSION	Intent to submit	18 March 2016

Submission	18 April 2016

DISSEMINATION

This research is aimed at developing health policy analysts' and researchers' knowledge of the different approaches to conducting SHA that exist across sectors so that they may be better placed to revise, conduct, and evaluate current SHA methods. It will also be of use to academics and students who may wish to build on this research and develop it beyond its current scope.

The study will be submitted to relevant journals for publication and will, if appropriate, also be submitted on the Internet as an open access (OA) document. This is to ensure wider dissemination in the spirit of breaking information barriers and encouraging access to relevant information for all.

REFERENCES

1. Akobeng, AK. (2005) Principals of evidence-based medicine. *Archive of Disease in Childhood*. 90: 837-840
2. Arksey, H. and O'Malley, A. (2005) Scoping studies. Towards a methodological framework. *International Journal of Social Research Methodology*. 8 (1): 19-32
3. Aveyard, H. (2007) *Doing a Literature Review in Health and Social Care. A Practical Guide*. McGraw Hill Open University Press, England
4. Bearman, M and Dawson, P. (2013) Qualitative synthesis and systematic review in health professions education. *Medical Education* 47: 252–260
5. Buse, K., Mays, N. and Walt, G. (2005) *Making health policy*. Second edition. London: McGraw Hill Open University Press
6. Brugha, R and Varvasovszky, Z (2000). Stakeholder analysis: a review. *Health Policy and Planning*. 15 (3): 239-246
7. Varvasovszky, Z and Brugha, R (2000). How to do (or not to do) a stakeholder analysis. *Health Policy and Planning*. 15 (3): 338-345
8. CASP (accessed on 10 December 2015) Critical Appraisal Skills Programme Better Value Healthcare Ltd. www.**casp**-uk.net
9. Chalmers, I. (2003). Trying to do more Good than Harm in Policy and Practice: The Role of Rigorous, Transparent, Up-to-Date Evaluations. *The Annals of the American Academy of Political and Social Science.* 589(1): 22-40.

10. Dixon-Woods, M., S. Agarwal, D. Jones, B. Young and A. Sutton (2005). Synthesising qualitative and quantitative evidence: a review of possible methods. *Journal of Health Services Research and Policy.* 10(1): 45-53.

11. Dixon-Woods, M., Bonas, S., Booth, A., Jones, D., Miller, T., Sutton, A., Shaw, R., Smith, J. and Young, B. (2006). How can systematic reviews incorporate qualitative research: A critical perspective. *Qualitative Research.* 6(1): 27-44

12. Gilson, L., Buse, K., Murray, SF. and Dickinson, C. (2008). Future directions for health policy analysis: a tribute to the work of Professor Gill Walt. *Health Policy and Planning.* 23: 291-293

13. Gilson, L and Raphaely, N (2008). The terrain of health policy analysis in low and middle-income countries: a review of published literature 1994-2007. *Health Policy and Planning*. 23: 294-307

14. Gilson, L., Erasmus, E., Borghi, J., Macha, J., Kamuzora, P. and Mte, G (2012) Using stakeholder analysis to support moves towards universal coverage: lessons from the SHIELD project. *Health Policy and Planning*. 257: i64-i73

15. Jackson, N and Waters, E (2005). Criteria for the systematic review of health of health promotion and public health interventions. *Health Promotion International*. 20(4) 367-374

16. Morphy, T (2017). *Stakeholder Theory.* Available: https://www.stakeholdermap.com/stakeholder-theory.html [2017, 22 June]

17. Pope, C., Mays, N. and Popay, J (2007) *Synthesising qualitative and quantitative health evidence. A guide to methods.* London: McGraw Hill Open University Press

18. Spencer, L., Ritchie, J., Lewis, J and Dillon, L. (2003). *Quality in Qualitative Evaluation: A framework for assessing research evidence*, Government Chief Social Researcher's Office. London: Cabinet Office

19. Surjadjaja, C. and S. H. Mayhew (2011). Can policy analysis theories predict and inform policy change? Reflections on the battle for legal abortion in Indonesia. *Health Policy and Planning* 26(5): 373-384.

20. Tranfield, D., Denyer, D. and Smart, P. (2003). Towards a methodology for developing evidence‐informed management knowledge by means of systematic review. *British journal of management.* **14**(3):207-222.

21. Victor, L. (2008). Systematic reviewing. *Social Research Update*. University of Surrey. (54)

22. Walt, G, Shiffman, J., Schneider, H., Murray, SF., Brugha, R and Gilson, L. (2008) 'Doing' health policy analysis: methodological and conceptual reflections and challenges. *Health Policy and Planning* 23: 308-317

23. World Health Organization 2007. *Everybody's business: strengthening health systems to improve health outcomes: WHO's framework for action*. Geneva: World health organization

ABSTRACT

Stakeholder analysis (SHA) is a policy analysis tool used to understand the actors who are affected by, or have an effect on, a particular policy process, management strategy or development project, spanning a variety of sectors including both government and corporate sectors, and covering areas such as business, conservation, health and more. The widespread application of SHA perhaps inevitably leads to some confusion with regards to terminology and methodology, but is also an opportunity for cross-sectoral learning. This paper presents the results of a broad scoping review of SHA literature published since 2000 presenting experience from outside the health sector, which aims to inform more rigorous application of SHA within the health sector, and for health policy analysis (HPA) in particular. The scoping study identified three sectors that employ SHA: government (17 articles), commercial or corporate (9 articles) and research or academia (3 articles). Whilst methodological approaches varied across articles and sectors, as expected, each paper described SHA methods in terms of four main features:

1. The way stakeholders (SH) are identified, e.g. purposive sampling.
2. The characteristics used to assess SH, e.g. power, position and interests.
3. How information about SH is gathered, e.g. survey with primary data sources.
4. How SH information is organized, analysed and presented, e.g. matrix, map.

The findings will be discussed under each of these headings, with examples from the literature.

Building on the map of SHA methods developed through this scoping review, the researcher will conduct a systematic review focused specifically on SHA methods used within the health sector. Knowledge of the broader context in which SHA is being applied will inform and support a critical analysis of the way it is applied in HPA.

BACKGROUND

"Policy analysts are increasingly interested in, and make increasing use of, methods that help them to get a better understanding of multi-actor policy processes… referred to as actor analysis methods." (Hermans and Thissen, 2009, p.808). One of the most widely used actor analysis methods is SHA, described as a "process of systematically gathering and analysing qualitative information to determine whose interests should be taken into account when developing and/or implementing a policy or program" (Schmeer, 1999, p.3). SHA can be used in prospective and concurrent analysis for a policy or programme, where the intention is to inform policy or programme outcomes. Stakeholder analysis (SHA) can also be used in the retrospective analysis of a policy or programme, to understand how and why it played out the way it did. The defining feature of SHA is its focus on understanding the positioning and power of the SHs involved.

Before its relatively recent use in health literature, SHA had been widely employed in the management and organizational sectors since the 1930s and was adapted for use in policy analysis in the 1970s and 1980s (Brugha and Varvasovzsky, 2000). However these methods, dispersed across diverse sectors, offer little opportunity for

intersection between sectors. It is rare, for example, that health policy analysts have the opportunity to interact with corporate management strategists to share stakeholder engagement and management techniques used in that sector. This scoping review aims to map SHA methods used outside the health sector by scoping relevant literature published since 2000. It is hoped that this comprehensive map will prompt health policy analysts' reflection on the scope and focus of SHA within the health sector. The results of this scoping review will also be used to inform a second, systematic review of the use of SHA within health policy analysis (HPA). Together these pieces of work aim to support more rigorous application of SHA approaches within future HPA work.

METHODS: SCOPING REVIEW

Scoping reviews are useful to uncover a wide range of literature relevant to the issue of interest (Arksey and O'Malley, 2005). The purpose of this review is to gain oversight of various methods used to conduct SHA and to describe both common and novel approaches found within sectors with many decades' experience using this method.

The scoping review was conducted over an extended period from June 2015 to December 2015 and focused on articles describing SHA published since 2000. The time frame of the search was guided by two seminal papers on the policy analysis method's use within the health sector by Ruairi Brugha and Zsuzsa Varvasovszky in 2000: 'Stakeholder analysis: a review' and 'How to do (or not to do)…A stakeholder analysis' respectively. These two papers, published in the Health Policy and Planning

journal were the first of their kind to offer first, a review of the application of SHA in policy and health care management and second, a guide on how to conduct policy analysis, predict policy development or implement policy that speaks specifically to the health sector.

This scoping review commenced with a very broad Google Scholar search of literature published between 2000 and 2015 in an attempt to gather background information pertaining to the application of SHA as well as to get a sense of the sectors in which it is applied. A scan of the first 50 article titles produced by the Google Scholar search revealed that SHA is being utilised across the world in HPA, as well as in a number of fields ranging from natural resource management and environmental science to construction, tourism, management and general public policy. This finding spurred further investigation into how these sectors practiced SHA and whether the health sector had something to learn from their methods, given that the use of SHA in these sectors pre-dates its use in the health sector by some decades. The objective of this scoping review was, therefore, to gather information that would allow for the description of SHA methods used outside health sector policy or programme analysis.

In order to refine the scoping search, while ensuring that articles from a variety of sectors would be included, the Scopus database was accessed. The search was limited to English language articles published in peer-reviewed journals in the last 15 years (2000 to 2015). Search terms included specific reference to ‘stakeholder analysis’ and policy, whilst various terms for ‘stakeholder’ and ‘power’ were explored using the Boolean operator ‘OR’. Boolean operator ‘AND’ was used to combine

search terms. The Scopus search revealed 86 articles. After excluding conference papers, book chapters, press articles, and non-English articles, 42 articles remained. Abstract, background and method sections were read with particular attention paid to detail describing SHA methodologies, while other sections of the article were scanned. Special note was also taken of diagrammatic presentation of stakeholder (SH) characteristics, such as matrices, tables or network diagrams, which assist analysis and assessment of multiple stakeholders.

Data extraction tables were used to gather information on the following factors from the different papers:

- Article title, journal and geographic location of study
- Sector/ field of study
- Policy or programme focus
- Stage of policy or programme analysis (retrospective, concurrent or prospective)
- Purpose or rationale behind conducting a SHA
- SHA method/s used, considering:

1. The way stakeholders (SH) are identified
2. The characteristics used to assess SH
3. How information about SH is gathered
4. How SH information is organized, analysed and presented

It became apparent that some articles' focus was on unpacking various stakeholder theories without detailing actual methods of conducting a SHA. Theoretical insights gained from these papers were used to inform the

researcher's broader thinking on SHA approaches and underlying rationale, but were not included in the review of SHA methods. One such paper, Hermans and Thissen, (2009) for example, provided a comprehensive overview of a range of actor analysis methods for use in public policy analysis. The majority of articles selected provided both methodological and theoretical insights. Reed et al. (2009), a prime example, offered a typology of SHA methods as well as detailed various theoretical approaches to SHA theories before presenting the methods used to conduct four separate SHA. However, articles that merely claimed to use SHA – without describing stakeholder identification and classification processes, how stakeholders are affected, or how stakeholders affected the intervention described in the article – were excluded. Ultimately 28 articles, spanning 3 main sectors, were included in the scoping search (see table 1). Just over half of the articles reported experience from low to middle income countries (LMICs). Four articles explored the issue across two countries.

Diagram 1: Scoping review article selection process

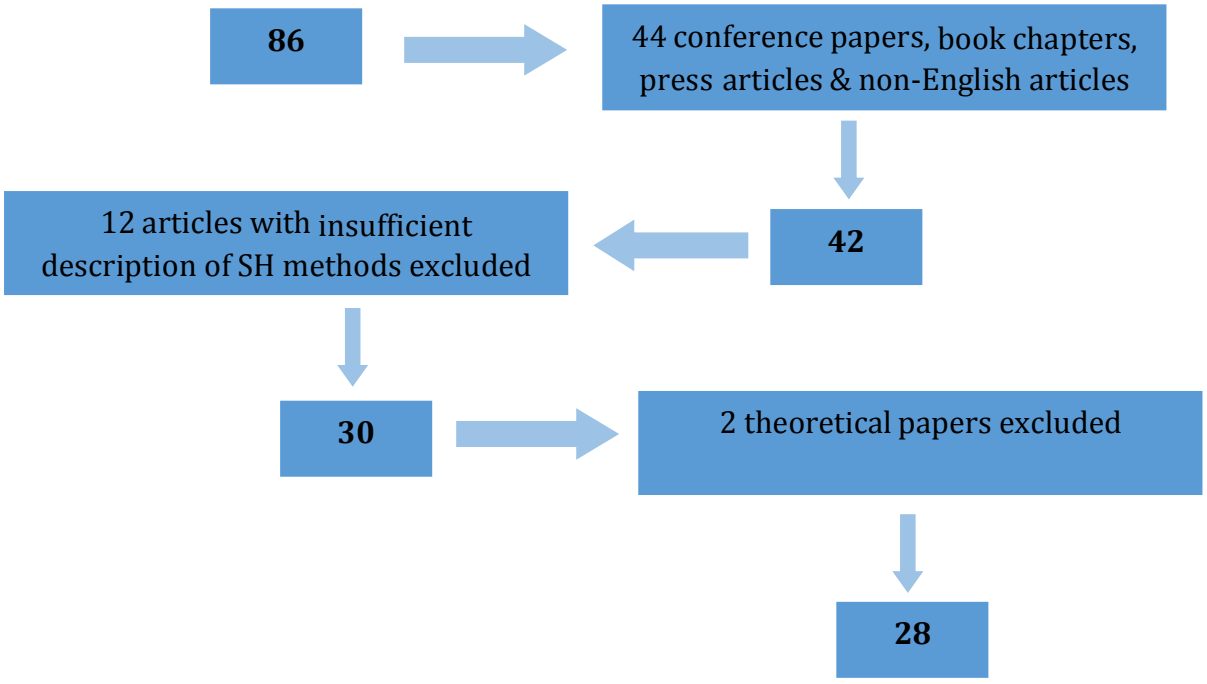

Table 1: Scoping review articles according to sector and geographical region.

Sector	Geographical regions	Number of articles
Government Policy	India (2), USA (4), South Africa, Greece, Egypt, Germany, Vietnam, Cambodia, Uganda, Yemen and Jordan, Kenya, Omani, Indonesia	17
Commercial or corporate	Australia and Canada, Australia, Malaysia, New Zealand, Brazil, Finland and Norway, Maldives and Mauritius, Saudi Arabia	8
Academia	Netherlands, UK, Australia, USA	3

RESULTS AND FINDINGS

Two distinctive types of papers emerged in terms of overall SHA approach and methodology: analysis *with* SH and analysis *of* SH. The difference between the two was most prominently seen in the way that SHs were engaged throughout the SHA process, but particularly during the data gathering and analysis stages. SHA *with* SH actively engaged SH in collaborative ways such as interactive workshops, consultative network mapping, scenario development and other participatory methods that sought to involve SH in planning or developing (Burkhardt and Ponds, 2006; Musvoto et al., 2014), implementing (Leys and Vanclay, 2011), evaluating (Wever et al., 2014) or reforming (Lopez, 2001) a policy or programme. Workshops (Mutekanga et al., 2013) and group or community meetings (Leys and Vanclay, 2011) were used to solicit SH participation and input into a particular policy, programme or, in the case of Musvoto et al. (2015), a tool to aid integrative decision-making for community natural resource management. Articles describing SHA *of* SH typically

used routine data collection methods such as existing literature, surveys, FGDs or interviews to obtain information pertaining to SH characteristics, their position relating to the issue at hand or relationships with other SH. This information was solicited from secondary sources (Campbell, 2004), knowledgeable actors from within the field of enquiry (Elijido-Ten et al., 2010), from the SHs themselves (Purnomo et al., 2012; Hardy et al., 2013), or a mix of data sources (Rastogi et al. 2010), but never in a way that saw SH becoming part of the SHA team. This data was then reviewed and discussed amongst the researchers and an analysis and conclusion derived to inform strategy.

1) Stakeholder identification

Once the policy or programme issue requiring analysis has been established, the next step in an SHA is to identify the SHs (Schmeer, 1999; Varvasovzsky and Brugha, 2000). In order to identify SHs, it is necessary to first define what or who SHs are. However, as noted in Doloi (2012) "a universally accepted stakeholder definition has not been found" (Doloi, 2012, p.535). And indeed may not serve in the best interest of the development of this approach, as SHs should be unique to the context and issue under analysis. This was evident in the papers reviewed as part of this scoping review.

De Lopez (2001) notes that several SH definitions exist in development and resource management literature and quote the following generic definitions to illustrate the point:

> "Stakeholders are those individuals or groups who are directly involved in the conflict, or who may be affected by how the conflict is resolved" (ICUN and

> Lewis 1996); “Stakeholders are those affected by the outcome negatively or positively or those who can affect the outcome of a proposed intervention” (World Bank 1996a; b); “Those who affect, and/ or are affected by, the policies, decisions, and actions of the system; they can be individuals, communities, social groups or institutions of any size, aggregation or level in society. The term thus includes policy-makers, planners and administrators in government and other organisations, as well as commercial and subsistence groups” (Grimple and Wellard, 1997).

A standard definition by Freeman (1984) was cited in a few articles reviewed for this scoping review. Friedman and Mason (2005), Reed et al. (2009), Martins et al. (2012), and Musvoto et al. (2014) each described SHs as individuals who affect or are affected by policy or programmatic decisions and actions. This definition was illustrated in Reed et al. (2009) who cited Chevalier and Buckles’ (2008) “rainbow diagram” to place SH within ‘affected’, ‘affecting’ or ‘affected and affecting’ categories (See Fig. 1). Evans (2009) also offers a more generic description of stakeholders as “individuals, groups, organisations, and communities involved in and affected by decisions made” (Evans, 2009, p.784).

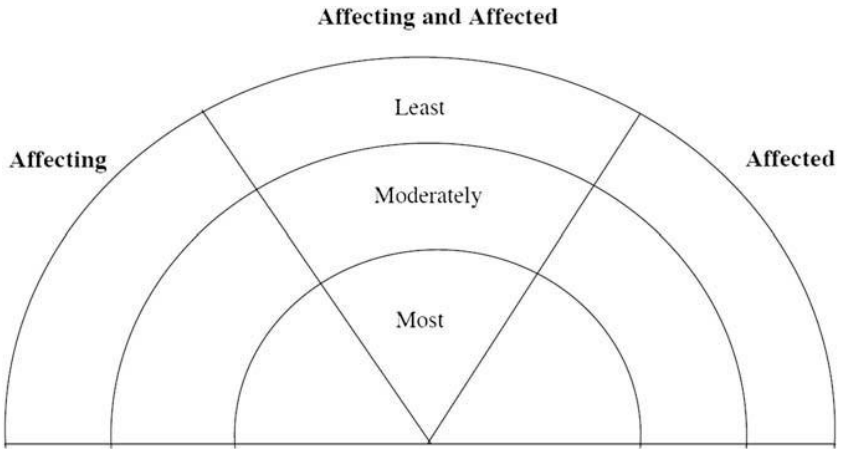

Fig. 1: Rainbow diagram for classifying stakeholders according to the degree they can affect or be affected by a problem or action

Source: Reed et al., 2009 (from Chevalier and Buckles, 2008)

While general definitions laid the basis as to who or what SHs were, context played the ultimate decision-maker in defining and identifying SHs for participation in SHA. Analysts commonly used their own judgments, based on experience or research, to identify categories of SHs specific to their context. Some examples can be seen in Table 2. Examples of SH definitions specific to the context and issue at hand can be seen in Table 3.

Table 2: SH categorisations

Paper/issue of focus	Categorisation of SHs
Hardy et al. (2013): Tourism	SHs were a group of recreational vehicle users who had previously been excluded from decision-making, due to an underestimation of their influence to block new camping policies.
Hoek and Maubach (2005): Potential harms of direct-to-consumer advertising of prescription medication	SHs were categorised as those who: cause harm (such as advertising agencies); are affected by harm (such as consumers or the general public); or are able to address harm (such as regulatory bodies)
Mutekanga et al. (2013): Watershed management project	Looked specifically for SHs with a high level of commitment to the project, power to influence its outcome, and those directly affected by it
Purnomo et al. (2012): New environmental policy	SH categorised in terms of geographical proximity, legal rights, knowledge of the issue, traditional rights, and culture

Table 3: SH definitions

Paper /issue of focus	SH definition
Almahmoud and Doloi (2015): Social sustainability of construction projects	Owners, contractors and consultants are considered the traditional stakeholders; but with evaluation of the social performance of construction projects, SH groups have been extended to include users of the completed building and neighbourhood communities as well. '
Mutekanga et al. (2013): A water management project	"Any individual or group of people, organized or unorganized, who share a common interest or stake in land and water management in the watershed."
Ramanathan (2001): Environmental impacts of a construction project	Key actors in the project, such as the authorities, local and affected people and engineers
Reed et al. (2005): SHA methods for natural resource management	"Narrower or more instrumental" and "broader and more normative" descriptions of SH. The former description refers to groups or individuals on whom organisations rely on for existence while the latter includes "any naturally occurring entity that is affected" which may include "living and non-living entities" such as animals and infrastructure or "mental-emotional constructs" such as "past generations or…future generations"
Sambajee et al. (2015): Small and medium business enterprises	Those actors who displayed high levels of power or interest, or both in relation to the issue

The varying SH definitions, give way to an equally varied account of the methods used to identify SH for inclusion in a SHA. Seventeen papers described a purposive approach only, relying either on literature and document reviews, surveys or interviews or on analysts or researchers' existing knowledge of the issue to identify SHs possessing pre-determined characteristics for inclusion in the SHA. For example Hardy et al. (2013) intentionally sought previously neglected SH groups to

understand how they galvanised their dormant power. Evans (2009) deliberately sought SH with divergent perspectives to better understand the Kenyan landscape of marine governance. Ten of these 17 papers were SHA *of* SHs. A further ten articles, seven of which were SHA *with* SHs, used a more rigorous two-stage approach (purposeful, followed by snowball sampling) to identify stakeholders. The remaining one article (Reed et al., 2009) describe examples of four separate SHAs, two of which utilise a purposive approach only and two a 2-stage approach to identify SHs.

In terms of purposive sampling, six of the 17 papers (Wever et al., 2015, Friedman and Mason, 2004 and 2005, Almahmoud and Doloi, 2015, Purnomo et al., 2012 and Campbell, 2004) reported the use of documents, literature or surveys to identify relevant SHs possessing pre-determined attributes. Five of these papers were SHA of SHs, two of which used Freeman's (1984) definition of SHs as a guide during a search of the broader construction literature (Friedman and Mason, 2004 and 2005); four articles (all of which described SHA of SHs) cited the use of a specific framework or stakeholder theory as their only guide to identifying SHs, with no discussion of literature searches or interviews to follow-up (see Table 4). The remaining seven articles (Ramanathan, 2001, Lopez, 2001, Zeitoun et al., 2012, Hardy et al., 2013, Shakweer and Youssef, 2007, Martins et al., 2012 and Kontagianni et al., 2005) offered limited insight into their process of SH identification, seeming to rely on analysts existing knowledge of the field and context to select the 'usual suspects' (with the exception of Hardy et al. who explicitly sought neglected SH group of recreational vehicle users). These SHA included 'major stakeholder groups', 'key actors', 'experts', 'industry specialists' or stakeholders from traditional roles within

their specific sector without offering insight into the data sources used to identify such SHs. In contradiction to their participatory approach used to analyse SHs and their attributes, the majority of these articles (five out of seven) were SHA *with* SHs.

Table 4: Frameworks and stakeholder theories used to guide SH selection

Paper/issue of focus	**Framework and theories**
Alsos et al. (2011): technology incubators	Mitchell, Agle & Wood's (1997) descriptive stakeholder theory to identify SH by one or more of the following attributes: their power to influence technology firms, legitimacy of their relationship with the firms and urgency of their claim on the firm for inclusion in SHA
Musvoto et al. (2014): Community natural resource management	Adopted Freeman's (1984) definition of SHs as individuals who affect or are affected by certain decisions and actions to identify primary and secondary SHs to include
Sambajee et al. (2015): small to medium enterprises (SME)	PESTEL (political, economical, societal, technological, environmental, legal) framework used to contextualise the wider SME environment and select relevant SHs
Hoek & Maubach. (2005): Advertising prescription medicines	Polansky et al. (2013) 'harm chain' theory to identify SHs who cause harm, are affected by harm, able to address harm

In the two-step approach to SH identification, SHs beyond those identified by the researcher/analyst conducting the SHA were included through snowball sampling. In-depth or semi-structured interviews, FGDs, or surveys were first conducted with SHs or experts in the field, who identified additional SHs. In most cases the researchers/analysts then approached the additional SHs in person, by mail, phone or email. However, in one study the initial SHs were asked to approach those whom

they deemed as SHs and invite them to partake in the SHA – so as to ensure a broad set of actors was chosen in an inclusive manner (Reed et al., 2009). Ultimately SHs included an assortment of actors such as researchers or academics, industry or corporate players, grassroots community members, government and non-government entities, civil society etc.

In light of potentially large numbers of SHs, the issue of which SHs to include in the SHA was raised in a few papers. Along with ensuring that the most relevant SHs are included, time and resource constraints can be deciding factors. Mutekanga et al. (2013), for example, faced funding limitations that prevented them from including all SHs identified in their participatory workshops to develop action plans for integrated watershed management. Recognising the influence of social networks on decision- making, they analysed SH social networks to determine which were most important to natural resource management participation and included SHs within those networks only. Purnomo et al. (2012), meanwhile, simply prioritised SH based on the availability of SH to participate in the analysis. Experiencing a poor response rate from SHs to participate, Sambajee and Dhomum (2015), however, prioritized by only including those SHs considered the most pertinent given their levels of power and/or interest with regards to small and medium business enterprises.

Finally, Rastogi et al. (2010) adopted a three-stage approach to ensure inclusion of SHs that may otherwise not have been directly apparent; a ‘reputational approach’ by consulting knowledgeable actors, a ‘focal’ approach by consulting key SHs to prepare a list of SH groups as well as snow-ball technique to identify further SHs.

2) Stakeholder characteristics and classifications

In the quest to better understand actors in relation to policy and programmes, a number of SH characteristics or attributes are considered and described in any SHA. As discussed above, SH attributes are used to select SHs for inclusion in the SHA (e.g. roles, power, knowledge), but attributes are also generated through the analysis (e.g. position, commitment, expectations) and used to inform future strategy development.

In some instances SH attributes used to identify SHs for inclusion were further developed through the SHA. This was seen in Shakweer and Youssef (2007), Martins et al. (2012), Elijido-Ten eta l. (2010) and Cotton and Mahroos-Alsaiari (2015). All four of these SHA *with* SH papers included SHs based on their knowledge and experience in the field or issue at hand. The knowledge held by these "information- rich key informants" (Elijido-Ten et al. 2010) was assessed during the SHA and applied to strategy development to further the agenda of each SHA. Other papers identified SH according to one set of attributes, and generated a new set through the SHA. This can be seen in Friedman and Mason (2004), Friedman and Mason (2005) and Alsos et al. (2011). Guided by Mitchell, Agle and Wood (1997), three SHA *of* SH papers identified SHs according to their possession of one or a combination of the following attributes: power, legitimacy and urgency. They then used the SHA to classify SHs into one of eight final categories: dormant, latent, dominant, dangerous, definitive, expectant, demanding or non-stakeholder. This offered insight into stakeholder management strategies.

The majority of papers (12 of the SHA *with* SH, 8 *of* SHA of SH) ultimately sought to generate a broader understanding of the position taken by SHs in relation to the policy

or programme. SH position or standpoint was typically informed by their preferences and interests, which determined the degree of importance they placed on the policy or programme and its perceived impacts on them. A difference was noted in that six of the SHA *with* SH papers focused specifically on conflicting positions of various SHs, as opposed to two of the SHA *of* SHs. Papers exploring SH positions relative to one another deliberately sought to include a range of SHs possessing a variety of attributes in order to determine divergent positions and understand SH conflict.

Table 5 presents the individual SH attributes assessed by each article, listed in order of frequency of consideration across the papers. The most pervasive SH attribute assessed is that of 'power', which is considered in 20 articles, followed by SH 'interest', considered in 14 articles and 'importance', found in ten. However, no SHA described the assessment of just one SH characteristic and so articles are linked to more than one attribute. Although some similarities in definitions were noted, context-driven variations were evident across papers. In some instances definitions weren't offered at all. Finally, although attributes may overlap, they are identified individually in the table so as not to dilute their original usage.

Table 5: SH attributes considered in the papers (See Appendix A for list of articles and corresponding numbers).

Attribute	Articles
Power *Used interchangeably with influence and resources in certain papers various definitions of 'power' described in Box 1;*	20 papers: (1, 3, 5, 7, 9, 10, 13-18, 23, 24, 26, 28, 29, 31, 33, 34)
Interest/ preference *"The advantages or disadvantages offered by* [the issue]*, as perceived by the stakeholders"* (Rastogi et al., 2010)	14 papers: (5, 7, 12- 15, 17, 18, 22, 23, 26, 28, 33, 36)
Importance/ Salience *The overall significance of the stakeholder in terms of achieving desired outcome. "Stakeholder salience is positively related to the cumulative number of stakeholder attributes"* (Doloi, 2012)	10 papers: (1, 3, 9, 13, 17, 26, 29, 31, 33, 34)
Position/ standpoint *Stakeholders stance on or opinion of the issue at hand, typically classified as supportive, opposing or neutral*	9 papers: (5-7, 10, 11, 16- 18, 22, 23)
Legitimacy *"Socially perceived value of a stakeholders' claim"* (Friedman and Mason, 2005)	5 papers: (1, 3, 26, 29, 31, 34)
Urgency *"Has two dimensions – time sensitivity and apparent importance to the stakeholder – and was demonstrated through the types of actions taken and resources expended toward the resolution of an issue"* (Friedman and Mason, 2005)	5 papers: (1, 3, 26, 29, 31, 34)
Roles/ purpose/ objectives *The part that stakeholders play in relation to the issue*	5 papers: (13, 19, 25, 28, 33)

Knowledge/ Information *What stakeholders know about the issue under review*	4 papers: (7, 14, 20, 23, 28)
Commitment *An indication of where stakeholders' intentions lie*	2 papers: (13, 28)
Leadership *"Vocal and influential".* (Rastogi et al., 2010)	2 papers: (7, 23)
Values, *"Stakeholder values identify what matters"* (Kontogianni et al., 2005)	2 papers: (6, 17, 22)

The stakeholder characteristics listed in Table 5 will be elaborated upon by drawing on examples from the articles reviewed. The number of examples discussed will reflect the frequency with which the attribute is identified across articles; and each article will be used at least once with examples drawn from all three sectors. The set of SH attributes that appear across multiple papers will be discussed simultaneously (such as power, legitimacy and urgency); less prevalent examples of SH attributes will also be highlighted.

Sets of SH attributes appearing across multiple papers

Six articles, two from government and four from the business sector, referenced Mitchel, Agle and Wood (1977) who emphasised SH salience or importance as important in understanding their impact on the policy or programme. According to Mitchel, Agle and Wood (1997) SH salience was measured relative to three attributes: power (SH abilities to resolve issues or to influence decision makers),

legitimacy (how others perceive SH goals) and urgency (actions taken by SH to achieve their goals). These articles further categorized potential SHs into one of four categories of SH importance, in each case according to the presence or absence of the three attributes: definitive (possessing power, legitimacy and urgency); expectant (possessing two of the three attributes); latent (possessing one out of the three attributes) or non-stakeholders (possessing none of the attributes) (Friedman and Mason, 2005, p.2012).

Evans (2009) and Campbell (2004), two articles from the environmental sciences, classified SHs in relation to influence and importance. Evans (2009) refers to influence as SH power to determine the outcome of a decision, and importance as the degree to which a SH is impacted by the decision made. In this article the decision was related to marine resource governance. Evans (2009) then categorises SHs into 3 typologies: primary stakeholders (have little influence over outcome of management decisions, but whose interests are important to decision makers), secondary stakeholders (mainly decision-makers who can therefore influence decisions) and external stakeholders (those who exert significant influence over process outcomes through lobbying of decision-makers, but whose interests are not important to decision-makers). Campbell (2004) refers only to primary and secondary SH groups distinguished according to their level of importance and influence within the food industry. In her paper, she focuses on how this distinction gives rise to SHs being split into two opposing groups; one advocating for a global and industrialised food system and the other for an alternative food system. All other SHA descriptions based the assessment of SHs on a mix of attributes that were not replicated by other articles: for example, interest, position, power, mutual

relationships and resource use (Hjortso et al., 2005); knowledge, position, interest, alliance, resources, leadership (Rastogi et al., 2010); and potential roles, attitudes, concerns and expectations regarding aquaculture/wind farm integration (Wever et al., 2015). Many attributes may appear to represent the same characteristic, such as power and leadership, or position and interests.

Power

Power was discussed extensively across the majority of papers reviewed and was intrinsically linked with other attributes, examples of which will be discussed, as the remaining attributes are unpacked below. Martins et al. (2012) referred to 'clout' as one of the main SH characteristics to take into account as they considered which SH attributes would still be at play over an extended period of time within the Brazilian road freight industry. In this instance the researcher interpreted 'clout' as 'power'. The remaining 19 papers referred to power directly, with some equating power as the ability to influence – such as Reed et al. (2009) and De Lopez (2001) – while Purnomo et al. (2012), and Burkhardt and Ponds (2006) linked power to resources, the amount of resources possessed by SH, and their ability to activate those resources. A range of other definitions presented is provided in Box 1.

Box 1 Power definitions

Definitions of power

"Power represents the stakeholder's ability to resolve the issue or influence decision makers. Power is manifest through physical force, financial and material resources (such as money, goods, or services) and symbolic resources (prestige, status)." – Friedman and Mason, 2005

"Power is defined as the combined measure of the amount of resources a stakeholder has and their capacity to mobilise those resources." – Purnomo et al., 2012

"Power – the ability to influence outcomes – derives as much or more from legitimacy and authority ['soft power'] *as it does from the barrel of a gun* ['hard power']." – Zeitoun et al., 2012

"Power itself does not necessitate high salience in a stakeholder-manager relationship; power gains its authority through legitimacy and urgency." – Hardy et al., 2013

"…evaluates stakeholder power in terms of an organisation's strengths and needs…power as consisting of 3 elements: resources, support and information. An organisation's resource power includes funding, personnel, statutory or physical control and centrality of the issue to agency mission. Support power is measured by determining the number and influence of groups that promote the organization. Information power is a measure of an organisation's ability to collect and analyse data and the perceived level of credibility of that data or analysis." – Burkhardt and Ponds, 2006

"*Power is conceptualized as the extent to which a party in a relationship can gain access to coercive, utilitarian or normative means to impose its will in the relationship"* - Alsos et al., 2011

Power was used to identify SHs for inclusion as seen in Hardy et al. (2013) who only included SHs based on their perceived lack of power, while Friedman and Mason (2004 and 2005) and Alsos et al. (2011) included SHs based on their possession of power, urgency or legitimacy. Sambajee et al. (2015) prioritised the inclusion of SH with a high level of either power or interest or both on the issue of small to medium business enterprises. Power was also further assessed in relation to other attributes in order to better understand SHs and inform strategy. De Lopez (2001) assessed SHs 'potential' for conservation (their support or opposition) of a national park with their influence or power to understand. From this assessment they derived a SH management strategy. Rastogi et al. (2010) conducted a SH power and leadership analysis in order to understand SH influence, which they considered a function of power and leadership, to affect conservation policy.

The general consensus presented in the literature is that power is the culmination of attributes and the ultimate ability of SHs to determine the course of action in relation to policy or project decision-making processes. Hardy et al. (2013) stood out from the other articles, as they looked specifically at the sudden and unexpected rise in power of a neglected SH group, initially considered too benign to engage with. They attributed this sudden galvanisation to social media, which in this case, facilitated communication and empowerment across an otherwise geographically disparate group of recreational vehicle users, scattered across the two countries of focus (Canada and Australia). They developed a 'dynamic model for neglected stakeholder analysis and engagement' that called for the identification of "potential stakeholder groups, including their potential power-bases" as well as to "continually assess the neglected stakeholder groups' power… to account for un-anticipated responses"

(Hardy et al. 2013, p.357).

Interest

'Interest' was the second most cited SH attribute and, according to Ramanathan (2001) should be the first SH attribute to be assessed and, where incongruent with the aim of the policy or programme, corrected. In this paper SH interests were assessed through the SHA so that "timely corrective actions" could be taken to ensure "local people feel positively about the project (Ramanathan, 2001 pg. 31). Doloi (2012) noted that SH influence ranking within a social network was consistent with their power and interest in the project, which in this case was a public infrastructure project. He makes explicit reference to 'economic interests' of project owners and 'direct interest' of employees, end-users and contractors in the actual project itself. In this paper, interest was assessed to better understand the power variables among SHs, finding that those with 'economic interests' had greater power on account of their increased decision-making capacity (Doloi, 2012). Rastogi et al. (2010) used SH interests to identify SHs for inclusion and further assessed these interests to understand them in relation to other SHs. They explored SH interests according to what they perceived as the advantages and disadvantages of the Corbett National Park in India. These interests were seen as key to the relationship with protected areas. SHs were then grouped according to the advantages and disadvantages they associated with the Park and further analysis revealed mutual interests of SH (Rastogi et al., 2010). Sambajee and Dhomun (2015) prioritised SH inclusion based on SHs level of power or interest in relation to small and medium enterprises (SMEs). They then quantified these attributes according to high or low through the SHA process to compare the role of government in the development of

SMEs. Musvoto et al. (2014) explored SH interests in relation to the development of a tool to integrate agricultural land use decision-making. Finally, Burkhardt and Ponds (2006) used SHs 'demonstrated or potential interest' in wildlife conservation as the basis to invite them to attend participatory SHA workshops.

SH interests was strongly linked to the position or stance taken in relation to the policy or programme.

Position

In some cases the position taken by SHs in relation to a policy or programme was used to identify SHs for inclusion in a SHA, such as Evans (2009) who included SHs based on the different positions they held. However, SH positions were mostly generated through the SHA and used to inform SH management practises. Typically SH positions were categorised as opposing, supporting or neutral, which is how Purnomo et al. (2012) classified SHs' stance on a proposed forest conservation plan, as did Rastogi et al. (2010) when describing SH positions on a national park. Zeitoun et al. (2012) simply plot SH position in terms of opposition or support for the development of water demand management strategies. De Lopez (2001), meanwhile, classified SH positions as supporting or opposing a conservation project, linking this to their relative influence on the project. Four SH positions emerged: 1) supporters; 2) opponents; 3) marginal supporters; 4) marginal opponents. As discussed more in the next section, Hoek and Maubach (2005) intersected pharmaceutical industry SH position on the issue ('for' and 'against' prescription-drug advertisement) with their position relative to one another.

Finally, Mazur and Asah (2013) considered why positions were taken, drawing on Clark and Wallace's (1995) concept of 'standpoint or perspective-taking', when investigating SH conflicts associated with the conservation of a species of predator in Washington State, USA. In their context standpoints was described as the way stakeholders "view the recovery process [of a predator] and the roles of various stakeholders in that process" (Mazur and Asah, 2013, p.80). The paper revealed three standpoints that were specific to the issue: ecological standpoint (supportive of predator recovery and conservation), incompatibility standpoint (opposing to recovery and conservation of predators) and precautionary standpoint (interested in the extent to which the predators should be recovered).

More broadly, and without fitting into any specific category of position, several papers describing SHA *with* SHs employed various participatory approaches to elicit SH perceptions relative to a policy or programme (see Table 6). SHs perception determined their position or stance on the issue, which in turn informed policy development and SH management approaches.

Table 6 SH perceptions used to determine position

Paper and issue of focus	**SH perceptions used to determine SH position**
Ramanathan (2001): Understanding environmental impacts of a construction project	Perceptions of importance of potential impact on the SH
Wever et al. (2015): Developing sustainable solutions for ocean use	Perceptions of opportunities and constraints

Kontagianni et al. (2005): Bottom-up environmental decision-making	Perceptions of risks and values
Hjortso et al. (2005): Participatory natural resource management	Perceptions of use of, and dependency on natural resources
Evans (2009): Divergent perspectives within marine governance	Perception of the degree of impact of the policy on the SH
Doloi (2012): Social performance of infrastructure projects	Perception of impact on SH

Stakeholder inter-relationships

The relationship between SHs was largely generated through the SHA and used to inform strategy development. SH attributes used to identify SHs were assessed relative to other SHs. SH 'interests' and 'positions' are strongly linked in that SH interests in the issue will determine the position they take in terms of opposing or supporting the issue. Many SHAs reviewed described SH positions and interest in relation to other SH, offering insight into SH relationships, whether conflicting or harmonious. These insights were generated through the SHA and used to inform strategy development and SH management approaches.

Exploring SH relationships and conflict was particularly prominent in papers describing SHA *with* SH (6/14) (Kontogianni et al. 2005, Leys and Vanclay 2011, Hjortso et al. 2005, Burkhardt and Ponds 2006, Mazur and Asah, 2013, Evans 2009 and Doloi 2012). Two of the 13 SHA of SH papers also explored SH relationships and conflict (Campbell 2004 and Rastogi et al. 2010). Indeed, described as a "conflict assessment technique" (Campbell, 2004, p.342) SHA can be used to assess dispute dynamics where SH have divergent interests and therefore differing positions on a project or policy. Concerned with integrating

SH perceptions and attitudes into environmental decision-making, Kontogianni et al. (2005) were also aware of existing conflicts among SH. As such they looked at SH interests in relation to other SH and developed a typology of conflicts based on information gathered about these conflicting interests. Conflicts were categorized on 4 different levels:

1. Micro-micro level (conflicts between users of the environment)
2. Micro-macro level (conflicts between users and external organisations)
3. Macro-micro level (conflicts between the state and locals)
4. Macro-macro level (conflicts between states)

The 'intensity' of the conflict was rated as small (+/-), medium (+), important (++) or very important/ critical (+++). The impact of the conflict on environmental management was further rated on a scale of 1 to 5, where 1 is 'too small' and 5 is 'too big'. Table 7 provides a snapshot of the final 'Conflicts' table developed in this study.

Table 7: Typology of conflicts

Conflict	**Intensity**	**Impact**
(Micro-micro) Farmers – Illegal sand extractors	++	2
(Micro – macro) Farmers – Ministry of Environment	+++	5
(Macro – micro) Ministry of Environment – Local population	+++	5

(Macro – macro) Greece – The Former Yugoslav Republic of Macedonia	+/-	5

Source: Kontogianni et al. (2005)

Hjorsto et al. (2005) also focused on SH conflicting interests and position, and presented a methodology for conflict resolution in which information from a conflict assessment was used to plan a subsequent participatory project development. Leys and Vanclay (2011) looked at SH interests that could support knowledge sharing and creation between diverse SH. Their aim was to foster consensus building and a common position from which the community could co-manage an area of land. Purnomo et al. (2012) position 30 key SH relative to one another and offer insight on the quality of relationships by detailing the level of access (direct or indirect) between each one. Mutekanga et al. (2013) look at cooperation among SH and Rastogi et al. (2010) deliberately sought out SH alliances to better understand where power, measured as the resources possessed by SH, and importance (a function of power) may be concentrated or pooled. Drawing on Frooman's (1999) resource dependence theory that proposes that an "entity's need for resources provides opportunities for others to control it" (Elijido-Ten et al., 2010, p.1037). Elijido-Ten et al. outline a typology of four types of "resource relationships based on power- dependence relationships:

1. Low interdependence – when neither a firm nor stakeholder is dependent on each other.
2. Firm power – when the stakeholder is dependent on the firm
3. Stakeholder power – when the firm is dependent on the stakeholder

4. High interdependence – when the firm and stakeholder are interdependent"

Knowledge

Shakweer and Youssef (2007) were concerned with how SHs perceived the future of Egypt's water sector. The only SH attribute they assessed was SH knowledge of the issue, so as to determine which SHs to elicit these predictions from. A participatory approach was employed to engage SHs in developing scenarios depicting the potential future of Egypt's water sector. Rastogi et al. (2010) used SH knowledge of the national park policy to help them identify SHs who oppose the policy due to misunderstandings or poor communication. They classified SHs into three knowledge categories: high, moderate and low. Martins et al. (2012) sought SHs with in-depth knowledge of different aspects of the Brazilian road freight industry, pointing to the benefits of each SH knowing the environment from a "different angle".

Roles

SH roles in relation to the issue under analysis were assessed in four papers and typically used to identify SHs for inclusion in a SHA. Doloi (2012) listed SHs according to their specific role or function within the construction project, e.g. investor, worker or designer. Mutekanga et al. (2013) listed SH objectives and roles in the implementation of integrated watershed management. Some examples include 'improve livelihoods', 'cause insecurity' and 'engineer water sources and roads'.

Commitment

In their use of SHA on integrated watershed management, Mutekanga et al. (2013) specifically selected SHs with a high level of commitment to the program so as to

ensure effective collaboration. When analysing potential SHs in terms of this attribute, they recognised that in some instances SH commitment depended on expected benefits of the program and adequate facilitation by more influential SHs (Mutekanga et al., 2013). Commitment was not assessed through the SHA process.

Leadership

Leadership was a SH characteristic used by Rastogi et al. (2010) to identify "vocal and influential stakeholders" who fostered group cohesion and organization.

Values

According to Kontogianni et al. (2005), SH values are vital in a structured decision approach to public environment. They claim that SH values reveal what matters most to SHs, thus offering insight into the consequences that require close attention.

Box 2: Categories or rankings of SHs

Primary, secondary, external SH – Evans et al. 2009
Central (high influence) verse peripheral (low influence) SH – Doloi, 2012
Perceived relevance of SH to company's survival ranked 1 to 9 where 1 is most relevant, 9 is least relevant - Elijido-Ten et al. 2010
High, medium or low level of knowledge – Purnomo et al. 2012
High or low power and leadership – Purnomo et al. 2012
Ideal SH (firms that technology incubators target to include in their incubator) and actual SH (firms accepted by technology incubators in order to have sufficient firms to warrant funding) – Alsos et al. 2011

3) Gathering data on stakeholders

Papers reviewed in this scoping study reported multiple data collection methods that were predominantly qualitative in nature (as shown in Table 8). Both papers describing SHA *with* and SHA *of* SHs relied on primary and secondary sources of data in order to understand SH position, interest, influence, behaviour and intention regarding the policy or programme under review. SHA *with* SHs however, adopted a participative approach when engaging with SHs in more than a 2-way conversation to gain information with SHs, while SHA *of* SHs used traditional question and answer and secondary data to obtain information about SHs.

Table 8 Data sources

Approach to data	Articles
Interviews	19
Literature/ document review	14
Questionnaires or surveys	9
Participative workshops	8
FGD	5
Quantitative e.g. Likert-like scale	6
Mixed methods (qualitative and quantitative data collected)	4

Interviews

The most commonly used data collection method was the use of interviews. Nineteen articles discussed the use of questionnaire-guided, in-depth or semi-structured interviews the vast majority conducted in-person with key-informants or

SHs. Interview questions were used to obtain SH insights on the issue at hand and/or to understand their characteristics or the characteristics of other SHs (see also Table 9).

Table 9 Insights gained from SH interview processes

Paper and focus	Information gained from interview
Reed et al. (2009)	Conducted semi-structured and phone interviews to uncover perceived changes in SHs' land and water management in response to transitioning policy drivers
Purnomo et al. (2012)	Used questionnaire-guided interviews to obtain both SH opinions on an emission-reduction policy, as well as understand more about SH characteristics
Hjortso et al. (2012)	Elicited SH perceptions of relationships and conflicts surrounding natural resource management within the wetlands of Vietnam. Answers were used to develop a cognitive map to represent the complexity of natural resource management in the area (more on this under 'Presentation of SH characteristics').
Mutekanga et al. (2013)	Shed light on key-informants' main concerns, their drivers, and possible solutions to water management problems.

Elijido-Ten et al. (2010), interestingly, described the use of hypothetical vignettes or scenarios nested in structured interview questionnaires to solicit the views of 15

purposively selected SHs. The hypothetical vignettes related to two topical environmental issues that emerged from secondary data sources, triangulated by primary data collected from 5 in-depth interviews with SHs, and depicted "events of varying levels of impact on human life and the environment" (Elijido-Ten et al., 2010, p.1041). Participants were given the hypothetical scenarios to read, asked to assume the role of the SH to which they most related and then complete a questionnaire designed to elicit their opinions and reactions to the vignettes.

Literature or document review

Literature or document review was used to obtain secondary data on SH, in 14 of the papers reviewed. A broad range of documents were reviewed: newspaper articles, meeting minutes, legislative transcripts, electronic media, peer-reviewed literature, plans, statistical reports, newsletters, policy documents, pamphlets, web-based material and archival documents. Most often literature review data was used to purposively identify SHs, as seen in Purnomo et al. (2012), as well as to create an understanding of the context in which the issue, project or policy is situated, as seen, for example, in Hjotso et al. (2005). In all but one paper (Campbell, 2004), this secondary data was used to triangulate primary data.

Questionnaires

Nine papers (Articles 7, 9, 12-15, 18, 20 and 22) used self-administered questionnaires or surveys to collect data on SHs. Eight of these nine papers described SHA *with* SHs. In some instances these were used to triangulate data collected earlier, such as in Kontogianni et al. (2005) who first conducted focus group discussions with one set of SH (community residents) before issuing pre-constructed questionnaires to a second

group of SHs (state and local resource managers). Similarly, Mutekanga et al. (2013) used a survey to follow-up from a SH workshop held five months prior. Shakweer and Youssef (2007) used two questionnaires, both of which served to prepare stakeholders for subsequent group interactions. The first questionnaire was issued to introduce stakeholders to the concept of 'futures thinking' in the run-up to a focus group discussion. The second questionnaire asked participants to describe possible scenarios for the future of water, the results of which were further discussed in a 'scenarios workshop'. This paper was a SHA *with* SHs.

Focus group discussions and participative workshops

FGDs were only described in five articles, whilst 'participative workshops' involving SHs were reported in eight papers, all of which were linked to the use of SHA as a participatory approach to planning a new policy or programme. For example, as a way of drawing insights from SHs on the complex issue of 'future studies', Shakweer and Youssef (2007) relied on the scenarios methodology within a participative workshop setting to get SHs to develop three scenarios for the future of water, along with relevant policies for each scenario. As discussed above, two questionnaires and a focus group discussion were used to prepare SHs for futures thinking required for effective participation in the workshop.

Burkhardt and Ponds (2006), meanwhile, describe the use of the Legal-Institutional Analysis Model (LIAM) to involve stakeholders in the development of a state management plan for grizzly bears. "The LIAM is based on political science, bureaucratic decision-making and social psychology" and gathers information from stakeholders during a 5-stage LIAM workshop (Burkhardt and Ponds, 2006). Box 3

describes the 5 stages in brief.

Box 3 The 5-stages of the LIAM workshop

Stage 1. Facilitators and stakeholders (participants) introduce themselves and set ground rules.
Stage 2. Key issues and concerns are identified in a facilitated brainstorming session.
Stage 3. A second brainstorming session is conducted to generate a comprehensive list of stakeholders
Stage 4. Completion of LIAM questionnaire in groups of 3-4 people from a mix of organisations. Groups are tasked with answering questions about 5-6 selected stakeholders by selecting a response on a 5 point scale from 'strongly agree' to 'strongly disagree'. Facilitators collate responses and produce a large role map displaying each SH's placement and list of strengths and needs.
Stage 5. Participants review and discuss roles, strengths and needs of each stakeholder, as well as strategic implications of the role map.

Other data collection methods

Three papers describing participatory SHA *with* SHs used participant observation techniques to collect information pertaining to SHs from community meetings, such as "routine interactions among stakeholders" (Rastogi et al., 2010), issues of concern raised by SHs (Leys and Vanclay, 2011) or a historical overview of the area and to identify key SHs for further interviews (Mutekanga et al., 2013).

Six papers also used quantitative means to gather data on SHs. In one of their case studies describing SHA *of* SH, Reed et al. (2009) asked SHA participants to rank SH influence over the issue using a Likert-type scale. This study also used a 'target diagram' depicting concentric circles, with the target or issue at the core and peripheral rings surrounding it. SHA participants were asked to place SH

organisations in relation to the target, either centrally or peripherally. Those organisations placed closest to the target were considered to have close interest in the issue at hand, whilst those placed further out on the periphery were deemed to have less interest. Evans (2009), a SHA *with* SHs, asked SHs to numerically rank the importance of particular issues presented to them in relation to marine governance. This was then computed into a 'priority index' to highlight the most pertinent issues for them.

A mix of qualitative and quantitative data collection methods were discussed by Burkhardt and Ponds (2006) – who used the LIAM approach (described above), Cotton and Mahroos-Alsaiari (2015) and Mazur and Asah (2013) – who both used Q-methodology and Ramanathan (2001) – who used the analytic hierarchy process (AHP). All four papers described participatory methods as they conducted their SHA *with* SHs. These approaches stood apart from the regular methods of collecting information pertaining to SH characteristics described above.

Responses from the LIAM questionnaire, completed electronically, are summed and averaged to produce a score that denotes SH's role. The same questionnaire also generates a bar graph indicating the amount of power held by each stakeholder (Burkhardt and Ponds 2006). Cotton and Mahroos-Alsaiari (2015) and Mazur and Asah (2013) use the Q-methodology approach to "identify and assess [SH's] subjective perspectives" in relation to a specific issue. They developed 50 and 56 pre-selected statements respectively, sampled from the greater 'communication concourse', a bank of commonly held discourses collected by the researchers and

believed to broadly represent debates on the issue at hand. These statements, or Q-sorts (see Box 4 for some examples), were then presented to SHA participants who were asked to rank them from 'most strongly agree' (+5) to 'most strongly disagree' (-5). Completed Q-sorts are analysed statistically using the PQ-Method software in order to gain insight into the most salient discourses among SHs. Box 4 offers examples of three Q-sorts from Cotton and Mahroos-Alsaiari (2015) and Azur and Asah (2013), and demonstrates the range of statements that were included in an effort to represent all stakeholder views on the issue at hand.

Box 4: Examples of Q-sorts used in Q-methodology approach to obtain SH position on an issue of interest.

Cotton and Mahroos-Alsaiari (2015)

1. Stakeholder participation processes in environmental impact assessments should be legitimised and be implemented systematically according to a specific code of practice.

2. Participation in environmental impact assessment study should be practiced on an ad hoc basis, as defined by the developer and the concerned ministry.

3. Participation in environmental impact assessments positively affects people's behaviour towards the environment.

Azur and Asah (2013)

1. We barely have enough money today to run anything, and if we take money out of the existing funding that means that programs for birds, elk, fish, and other wildlife are going to suffer.

2. Public education and outreach about management of wolves and wolf ecology must be given high priority and full funding under the final plan.

3. Managing wolf-human interactions will be very important for human safety.

Finally, the AHP approach adopted by Ramanathan (2001) was used to conduct a socio-economic impact assessment *with* stakeholders affected by the development of a gas recovery plant. Typically this kind of assessment is only concerned with perceived impacts, but authorities in this case were also interested to understand how SHs viewed the relative importance of each potential socio-economic impact. The AHP approach was useful in that it allowed analysts to capture a range of subjective perceptions regarding a number of areas of impact (e.g. housing, sanitation, health) from a variety of SHs, and convert these into objective numbers using a series of standardised mathematical equations or formulae which allow for aggregation of all SH responses to produce a final quantitative account of the most important socio-economic impacts as perceived by SH.

Box 5 AHP process

Using AHP to conduct a socio-economic impact assessment of a proposed gas recovery plant.

Step 1. Preliminary surveys with SHs to identify potential significant socio-economic impacts of the proposed development, e.g. sanitation, housing, water supply, transport and health

Step 2. Follow-up set of surveys asking stakeholders "of the two criteria (impacts) which is more important?" This is also called a 'pair-wise' comparison. SH ranks paired impacts on a scale of 1 (impacts are of equal importance) to 9 (the impact selected has the highest possible importance compared to the impact not selected), e.g. sanitation vs. transport = 1 (impacts on both are equally important); health vs. housing = health ranked 9 (SH perceives impact on health as being most important compared to housing)

Step 3. Each SH survey outcome is calculated according to a standardised formula to obtain local priorities of criteria (impacts). This allowed analysts to compare how different SH groups prioritized different impacts, e.g. both the town and village communities believed water-supply problems to be the most severe impact, with sanitation considered the second most severe according to town people and villagers viewing transport as the second most severe impact.

Step 4. A second standardised formula was used to aggregate all local priorities of impacts in order to obtain an overall importance ranking to inform prioritization of environmental management plan.

Insights gained from this approach were used to prioritise environmental management plans, as well as budget appropriately to avoid adverse socio-economic impacts.

4) Presentation of stakeholder attributes

Qualitative and quantitative analysis of interview transcripts, questionnaire responses, FGDs, document reviews or workshop activities was conducted, using manual methods as well as computer software programmes. Across papers, as summarised in Table 5, analysis generally culminated in some form of graphic representations of SH attributes.

Table 5 Forms of graphic used to present the SHA

Format to present SH characteristics	Article
Table	15 papers: (1, 3, 5(b), 6, 7, 11, 13, 16, 17, 18, 22, 23, 29, 31, 36)
Map	9 papers: (7, 9, 13, 14, 18, 23, 25, 29, 33)
Matrices	7 papers: (5(b), 9, 10, 16, 24, 28, 34)
X and Y axes	2 papers: (28 and 15)

Only five of the papers reviewed did not present SH characteristics diagrammatically (Ramanathan, 2001; Shakweer and Youssef, 2007; Hermans and Thissen, 2009; Alsos et al., 2011; Wever et al., 2015). Meanwhile, some articles reported on the use of more than one method to present SH attributes, such as Purnomo et al. (2012), which presented two different types of SH maps as well as several tables summarizing SHs and their attributes.

These graphics provide a picture of who SH were, their differences, inter-relationships, positions and attributes in relation to other stakeholders and relative to the issue under review. In general maps were used to indicate relationships and networks between multiple SHs, tables were largely used to provide the reader with a snapshot of who the SHs are and their key characteristics. Matrices were used to plot SH position or attributes in relation to two specific characteristics and the degree to which SH possessed these characteristics. Appendix B presents more specific examples to illustrate the range of graphic presentation approaches identified.

Whilst many papers note that time influences SH attributes and positioning, only two papers reported actually repeating their SHA: Friedman and Mason (2005) and Leys and Vanclay (2011). These two papers illustrated the change in SH position or attributes over time during the course of the SHA. Friedman and Mason (2005) presented an initial and follow-up SH table depicting the various SHs, their classification and their characteristics of power, legitimacy and urgency. Leys and Vanclay (2011) also presented a diagram that plotted SHs' changing attitudes with respect to their position (x-axis) in support of or opposition to an issue over time (y-axis).

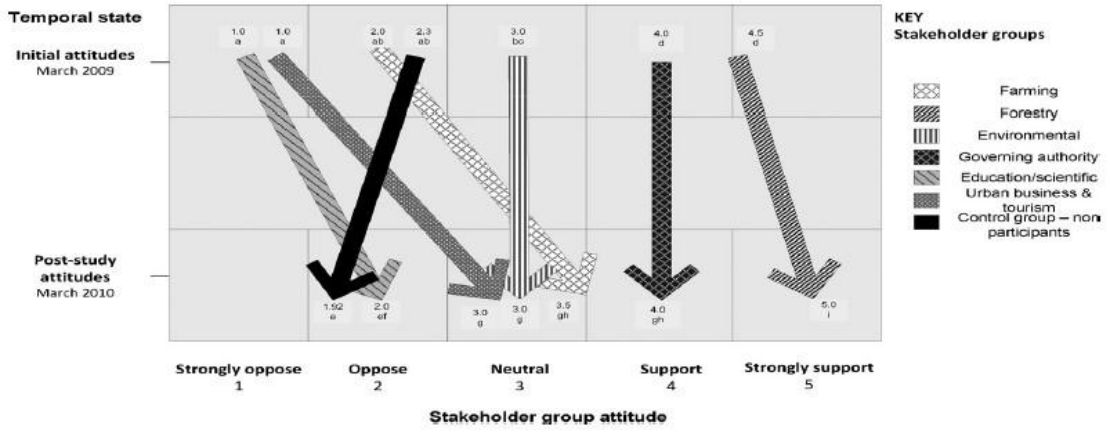

Figure 1. Change in stakeholder group attitudes towards the hardwood plantation forestry industry attributed to participation on the social learning study.

Source: Leys and Vanclay 2011, p.579

Approaches to manage SHs or inform policy reform are, finally, derived from review of the graphic representations, which offer insight as to which SHs to consider, and how, within the strategies. Two-dimensional matrices are commonly used to depict a variety of coupled SH characteristics such as power and interest (Reeds et al., 2009; Sambajee and Dhomum, 2015), influence/power and importance (Evans, 2009), power and predictability (Hardy et al., 2015), power and position (Zeitoun et al., 2012), potential and influence/power (Lopez, 2001) as well as influence and dependence, and importance and uncertainty (Martins et al., 2012). The cells in these tables then provide indications of broader stakeholder management strategies, as shown in Figure 2 and 3.

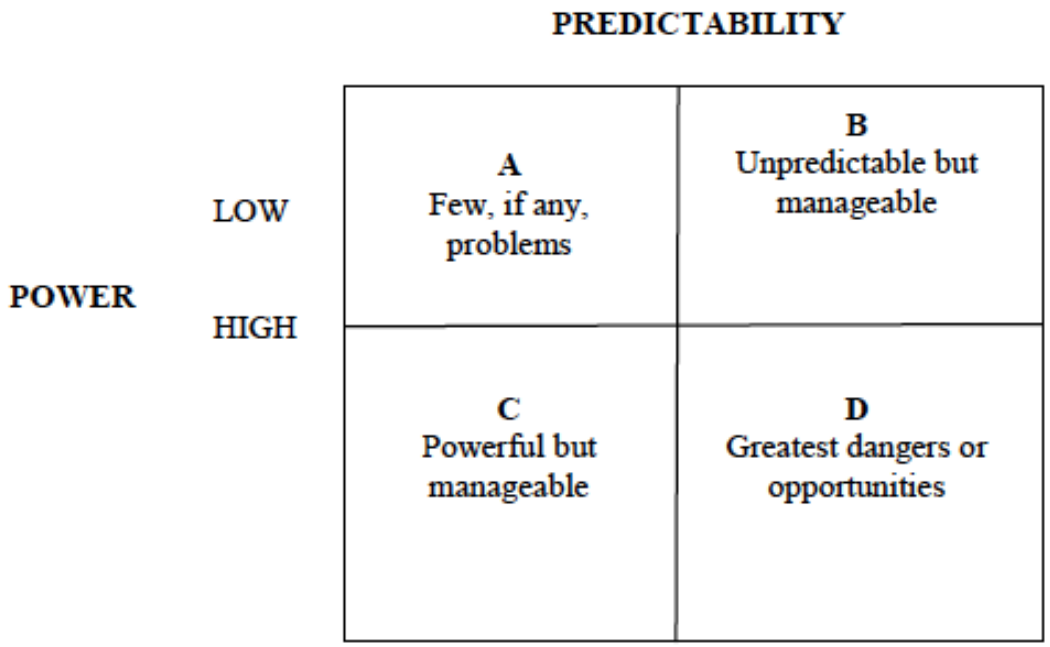

Figure 2. The power/ predictability matrix for stakeholder mapping

Source: Hardy et al. 2013, p.350

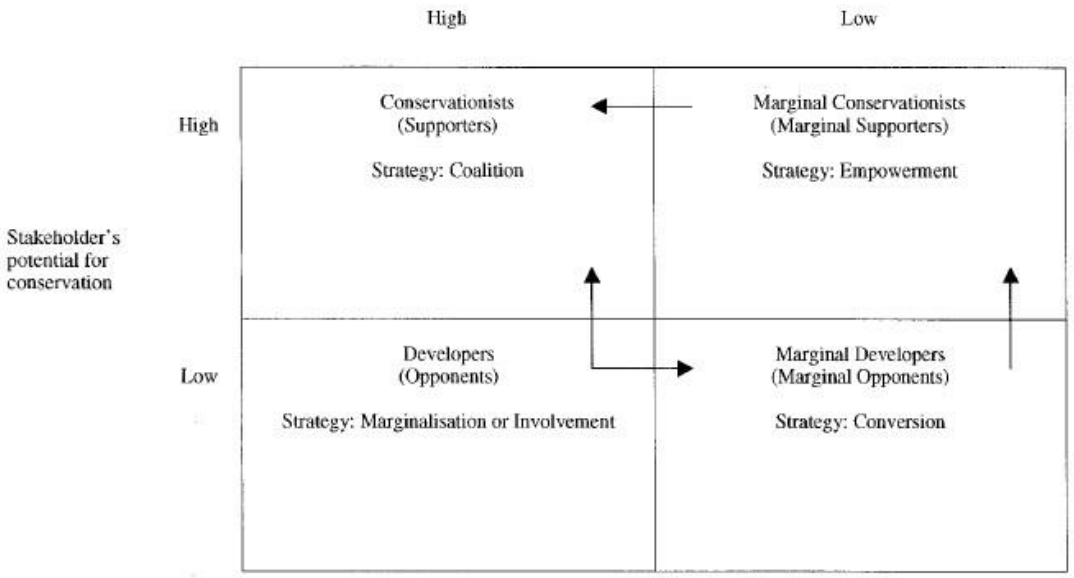

Figure 3. Mapping of stakeholders' potential for conservation and influence or power on the project.

Source: Lopez 2001, p.54

CONCLUSION

Given its use across multiple sectors and within various fields, the range of SHA methods described here is not surprising. It might be said that the range is indicative of a somewhat immature method of analysis still in need of refinement, and that further research is necessary to mature the method and develop a more standardised approach. Alternatively, the diverse approaches to conducting a SHA could be understood as its strength, an indication of the versatility and adaptability of this actor analysis method and thus its practical application across sectors.

Despite the variation in methods, four fundamental steps of SHA could be identified across papers, contributing toward a sense of standardisation: SH identification; characteristics used to assess SH; SH information gathering; SH information organization, analysis and presentation. This scoping review shows that these core elements can be tackled using qualitative, quantitative or mixed method approaches in a variety of ways that suit the intent, theoretical standpoint, context and sector. Whether the aim is to foster SH participation, understand SH conflict or gain perspective into which SHs need winning over, there is a method of conducting SHA that can be used to achieve these aims.

Typically SH were identified by means of a two-stage process of purposive followed by snowball sampling. Purposive sampling was done largely on the basis of the analyst or researchers sense of who the relevant SH might be, guided by both analysts' knowledge of the issue or field as well as by the motivation for conducting a SHA in the first place.. Snowball sampling then allowed purposively selected SH to identify further SHs that analysts or researchers may not have known about or considered.

The most pervasive characteristic used to assess SH was that of power. Power was described in many ways across all articles, and was a culmination of attributes in various quantities. The ultimate measure of SH attributes determined the level of power they possessed in relation to the policy or programme. SH had the power to support or oppose and thus influence the trajectory of the policy or implementation programme under review. SHA sought to understand what SH

characteristics could be attributed to power, where that power sat and how it could be used to forward the policy agenda.

In all but one paper (Campbell, 2004), multiple data collection methods were employed to gather information about SH. Generally data collection started with document review, which assisted in initial identification of SH, before progressing to interviews, focus group discussions or interactive workshops to gather first-hand information from SH themselves. Qualitative or quantitative data were collected, and there were some examples of a mixed methods approach.

The majority of papers represented the outcome of the SHA in graphic form. In most cases SH attributes were represented in relation to other SH and plotted in relation to the issue at hand. This allowed analysts a quick review of the situation and provided a basis for generating ideas about future strategy.

The findings of this scoping review about the range of methods used to conduct SHA outside the health sector provides a basis from which to assess critically the SHA methods applied within health policy analysis.

REFERENCES

1. Almahmoud E, Doloi HK. 2015. Assessment of social sustainability in construction projects using social network analysis. *Facilities*. **33(3/4)**: 152-176
2. Alsos GA, Hytti U, Ljunggren E. Stakeholder theory approach to technology incubators. 2011. *International Journal of Entrepreneurial Behavior and Research.* **17(6)**: 607-625
3. Arksey, H. and O'Malley, A. (2005) Scoping studies. Towards a methodological framework. *International Journal of Social Research Methodology*. 8 (1): 19-32
4. Burkardt N, Ponds PD. 2006. Using role analysis to plan for stakeholder involvement: a Wyoming case study. *Wildlife Society Bulletin.* **34(5)**: 1306-1313
5. Brugha, R and Varvasovszky, Z (2000). Stakeholder analysis: a review. *Health Policy and Planning*. 15 (3): 239-246
6. Campbell MC. 2004.Building a common table. The role for planning in a community food system.*Journal of Planning Education and Research.* **23**: 341-355
7. Cotton MD, Mahroos-Alsaiari AA. 2015. Key actor perspectives on stakeholder engagement in Omani Environmental Impact Assessment: an application of Q-methodology. *Journal of Environmental Planning and Management.* **58**:91-112

8. Doloi H. 2012. Asessing stakeholders' influence on social performance of infrastructure projects. *Facilities*. **30(11/12)**: 531-550

9. Elijido-Ten E, Kloot L, Clarkson P. 2010. Extending the application of stakeholder influence strategies to environmental disclosures. *Accounting, Auditing and Accountability Journal.* **23(8)**: 1032-1059

10. Evans LS. 2009. Understanding divergent perspectives in marine governance in Kenya. *Marine Policy.* **33**: 784-793

11. Friedman MT, Mason DS. 2004. A stakeholder approach to understanding economic development decision making: public subsidies for professional sport facilities. *Economic Development Quarterly.* **18(3)**: 236-254

12. Friedman MT, Mason DS. 2005. Stakeholder management and the public subsidisation of Nashville's Coliseum. *Journal of Urban Affairs.* **27(1)**: 93-118

13. Hardy A, Wickham M, Gretzel U. 2013. Neglected stakeholder groups: conceptualising a dynamic model for neglected stakeholder analysis and engagement. *Corporate Ownership and Control.* **11(1)**: 348-359

14. Hermans, LM, Thissen WAH. 2009. Actor analysis methods and their use for public policy analysts. *European Journal of Operational Research.* **196**: 808-818

15. Hjortso C, Christensen SM, Tarp P. 2005.Rapid stakeholder and conflict assessment for natural resources management using cognitive mapping: the case of Damdoi forest enterprise, Vietnam. *Agriculture and Human Values.* **22**: 149-167

16. Hoek J, Maubach N. 2005. A model for addressing stakeholders' concerns about direct-to-consumer advertising of prescription medicines. *European Journal of Marketing.* **39(9/10)**: 1151-1165

17. Kontogianni A, Tziritis I, Skourtos M. 2005. Bottom-up environmental decision making taken seriously: integrating stakeholder perceptions into scenarios of environmental change. *Human Ecology Review.* **12(2)**: 87-96

18. Leys AJ, Vanclay JK. 2011. Social learning: a knowledge and capacity building approach for adaptive co-management of contested landscapes. *Land Use Policy.* **28**: 574-584

19. Lopez TT. 2001. Stakeholder management for conservation projects: a case study of Ream National Park, Cambodia. *Environmental Management.* **28(1)**: 47-60

20. Martins PPP, Boaventura JMG, Fischmann AA, Costa BK, Spers RG. 2012. Scenarios for the Brazilian road freight transport industry. *Foresight.* **14(3)**: 207-224

21. Mazur KE, Asah ST. 2013. Clarifying standpoints in the gray wolf recovery conflict: procuring management and policy forethought. *Biological Conservation*. **167**: 79-89

22. Musvoto C, Nortje K, Murambadoro M. 2014. Bringing the integrative aspect of sustainable development into community natural resource management: the case of agricultural land use in Limpopo, South Africa. *International Journal of Sustainable Development Planning.* **9(3)**: 445-463

23. Mutekanga FP, Kessler A, Leber K, Visser S. 2013. The use of stakeholder analysis in integrated watershed management. *Mountain Research and Development.* **33(2)**: 122-131

24. Purnomo H, Suyamto D, Abdullah L, Irawati RH. 2012. REDD+ actor analysis and political mapping: an Indonesian case study. *International Forestry Review.* **14(1)**: 74

25. Ramanathan R. 2001. A note on the use of the analytic hierarchy process for environmental impact assessment. *Journal of Environmental Management.* **63**: 27-35

26. Rastogi A, Badola R, Hussain SA, Hickey GM. 2010. Assessing the utility of stakeholder analysis to Prected Areas management: the case of Corbett National Park, India. *Biological Conservation.* **43**: 2956-2964

27. Reed MS, Graves A, Dandy N, Posthumus H, Hubacek K, Morris J, Prell C, Quinn CH, Stringer LC. 2009. Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management.* **90**: 1933-1949

28. Sambajee P, Zulficar M, Dhomun A. 2015.Government and SMEs in the Maldives and Mauritius. *Internaional Journal of Entrepreneurial Behavior and Research.* **21(6)**: 778-795

29. Schmeer, K. 1999. Guidelines for conducting a stakeholder analysis. Bethesda, MD: Partnerships for Health Reform, Abt Associates Inc.

30. Shakweer A, Youssef RM. 2007. Future studies in Egypt: Water foresight 2025. *Foresight.* **9(4)**: 22-32

31. Varvasovszky Z, and Brugha R. 2000. Stakeholder analysis. *Health Policy and Planning* **15(3)**: 338-345

32. Wever L, Krause G, Buck BH. 2015. Lessons from stakeholder dialogues on marine aquaculture in offshore wind farms: Perceived potential, constraints and research gaps. *Marine Policy.* **51**: 251-259

33. Zeitoun M, Allan T, Aulaqi NA, Jabarin A, Laamransi H. 2012. Water demand management in Yemen and Jordan: addressing power and interest. *The Geographical Journal.* **178(1)**: 54-66

APPENDIX A

Article list with corresponding numbers

1. Friedman MT, Mason DS. 2005. Stakeholder management and the public subsidisation of Nashville's Coliseum. *Journal of Urban Affairs.* **27(1)**: 93-118

3. Friedman MT, Mason DS. 2004. A stakeholder approach to understanding economic development decision making: public subsidies for professional sport facilities. *Economic Development Quarterly.* **18(3)**: 236-254

5. Reed MS, Graves A, Dandy N, Posthumus H, Hubacek K, Morris J, Prell C, Quinn CH, Stringer LC. 2009. Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management.* **90**: 1933-1949

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12. Ramanathan R. 2001. A note on the use of the analytic hierarchy process for environmental impact assessment. *Journal of Environmental Management.* **63**: 27-35

13. Mutekanga FP, Kessler A, Leber K, Visser S. 2013. The use of stakeholder analysis in integrated watershed management. *Mountain Research and Development.* **33(2)**: 122-131

14. Burkardt N, Ponds PD. 2006. Using role analysis to plan for stakeholder involvement: a Wyoming case study. *Wildlife Society Bulletin.* **34(5)**: 1306-1313

15. Leys AJ, Vanclay JK. 2011. Social learning: a knowledge and capacity building approach for adaptive co-management of contested landscapes. *Land Use Policy.* **28**: 574-58

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17. Campbell MC. 2004.Building a common table. The role for planning in a community food system. *Journal of Planning Education and Research.* **23**: 341-355

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25. Almahmoud E, Doloi HK. 2015. Assessment of social sustainability in construction projects using social network analysis. *Facilities*. **33(3/4)**: 152-176

26. Alsos GA, Hytti U, Ljunggren E. Stakeholder theory approach to technology incubators. 2011. *International Journal of Entrepreneurial Behavior and Research.* **17(6)**: 607-625

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31. Elijido-Ten E, Kloot L, Clarkson P. 2010. Extending the application of stakeholder influence strategies to environmental disclosures. *Accounting, Auditing and Accountability Journal.* **23(8)**: 1032-1059

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36. Musvoto C, Nortje K, Murambadoro M. 2014. Bringing the integrative aspect of sustainable development into community natural resource management: the case of agricultural land use in Limpopo, South Africa. *International Journal of Sustainable Development Planning.* **9(3)**: 445-463

APPENDIX B

Examples of graphic presentations used in the SHA papers reviewed

Tables were used to list and rank SHs and their characteristics in relation to a policy or project – for example, SH role, objective, level of commitment, power to influence, potential to be affected (Mutekanga et al., 2013) – or SH levels of power, leadership and knowledge assessed in the SHA and ranked as high, moderate or low (Rastogi et al., 2010), see Figure 2 below.

Table 3
Assessment of Power, Leadership and Knowledge levels of stakeholders of Corbett National Park, India.

	Power					Leadership recorded	Knowledge				
	(% interviewees of total in the stakeholder group)			Cumulative value $(A*3+B*2+C*1)/3$	Power level[a]		(% interviewees of total in the stakeholder group)			Cumulative value $(D*3+E*2+F*1)/3$	Knowledge level[a]
	High	Moderate	Low				High	Moderate	Low		
	A (%)	*B* (%)	*C* (%)				*D* (%)	*E* (%)	*F* (%)		
Supportive villagers	0	0	100	33.3	Low	Yes	0	33	67	44.3	Low
Non-supportive villagers	8	24	68	46.7	Moderate	Yes	0	25	75	41.6	Low
Ramnagar residents	0	0	100	33.3	Low	No	0	26	74	42.0	Low
CNP management	50	33	33	83.0	High	Yes	50	33	33	83.0	High
Non-Government Organisations	100	0	0	100.0	High	Yes	100	0	0	100.0	High
Tourism sector	6	33	61	48.3	Moderate	Yes	18	49	33	61.7	Moderate
Local media	14	86	0	71.3	Moderate	Yes	0	100	0	66.7	Moderate
Religious groups	0	0	100	33.3	Low	No	0	0	100	33.3	Low
Tourists	0	2	98	34.0	Low	No	4	16	80	41.3	Low
Researchers	0	0	100	33.3	Low	No	100	0	0	100.0	High

[a] 0–45%: low; 45–75%: moderate; 75–100%: high.

Figure 2: Table listing stakeholders and ranking their power, leadership and knowledge.

Source: Rastogi et al., 2010, p.2960

Burkhardt and Ponds (2006) generated 'role maps' (Figure 3) from their application of the LIAM approach, identifying SHs in one of four pre-determined groups based on their preference for a process that ranges from "a brokered or negotiated decision" to an "arbitrated decision" (Burkhardt and Ponds, 2006, p.1307).

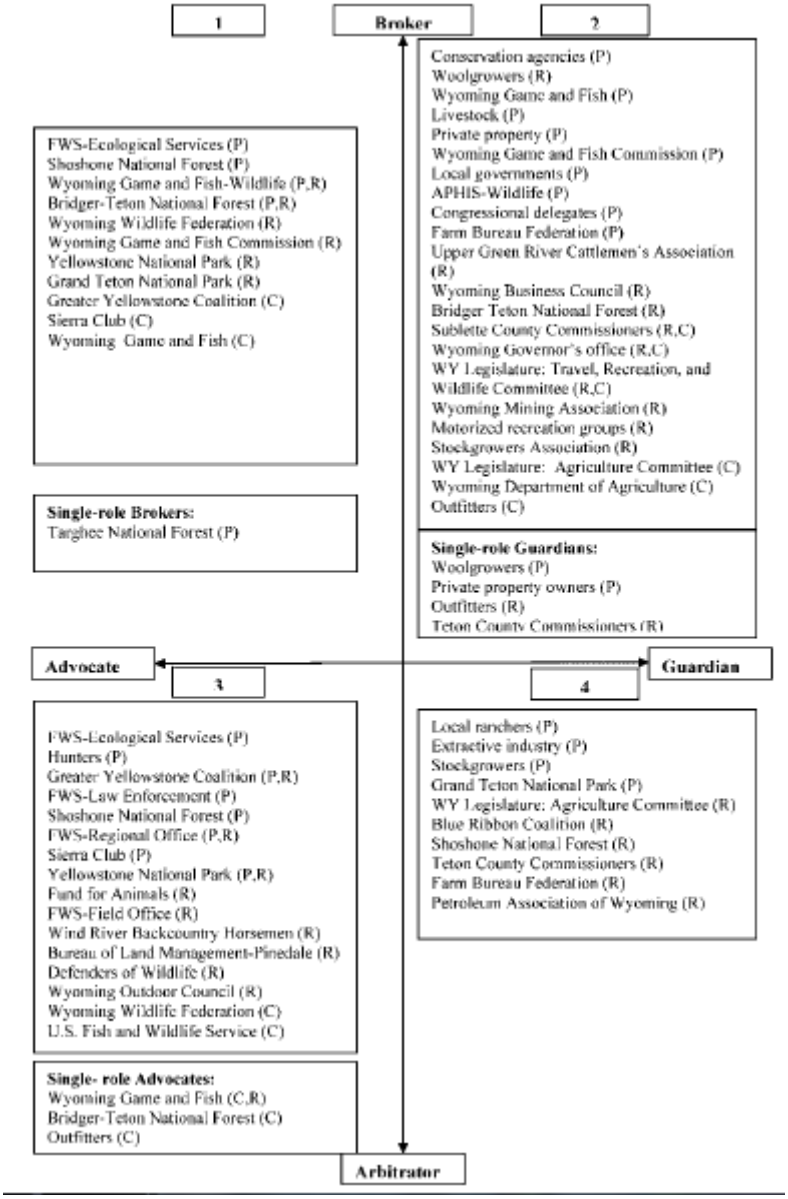


Figure 2: Legal Institutional Analysis Model (LIAM) roles developed from three SH workshops: Advocate, Guardian, Broker and Arbitrator.

Source: Burkhardt and Ponds, 2006, p.130

Hjortso et al. (2005) present SH perspectives gleaned from qualitative interviews in the form of a cognitive map, providing an overview of the 'bi-polar concepts' held by SH – that is, for each belief held by stakeholders, the polar opposite is also included in the map to depict all potential conflicting concepts. Arrows between concepts indicated a cause-effect relationship (see Figure 4).

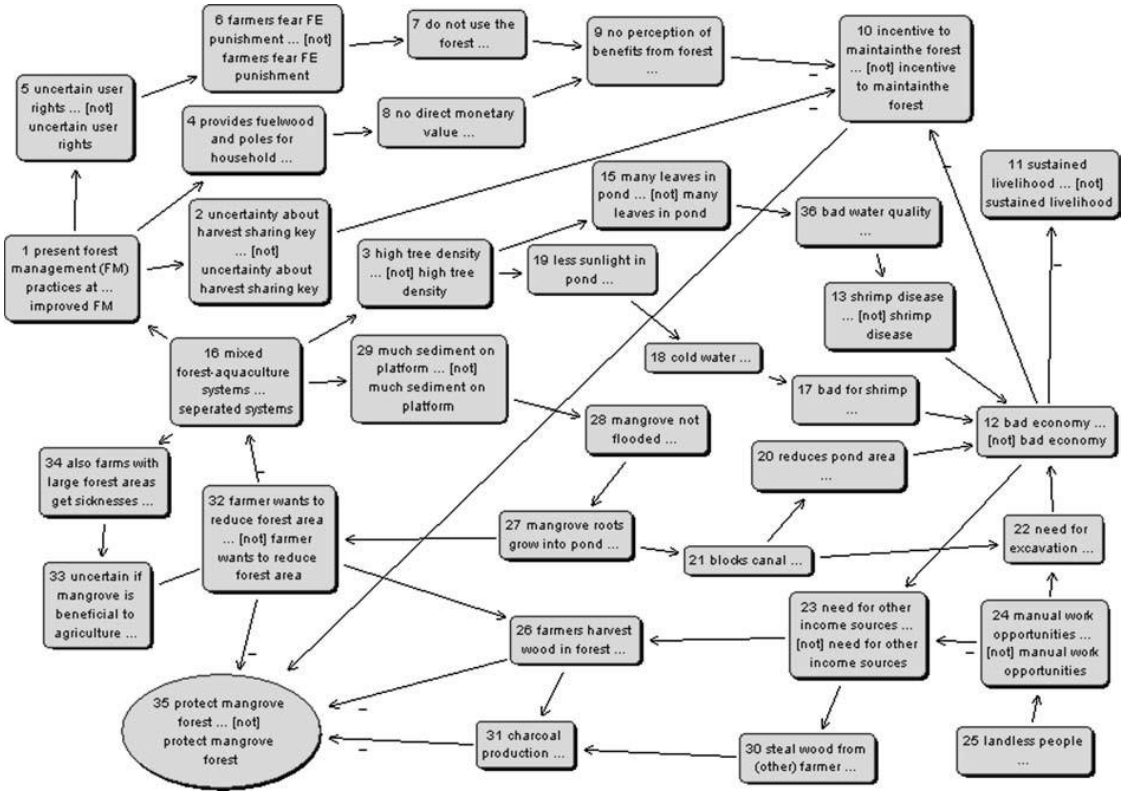


Figure 4: Thematic cognitive map showing farmers' perceptions of issues involved in the aquaculture–mangrove conservation conflict.

Source: Hjortso et al., 2005, p.162

Almahmoud and Doloi (2015) used social network maps to illustrate the degree of interest in, and influence over, a project, held by various SHs. The degree of centrality is indicative of SH prominence within the network. Those SHs positioned in the middle of the social network have greater influence and interest than those on the periphery of the network (see Figure 5).

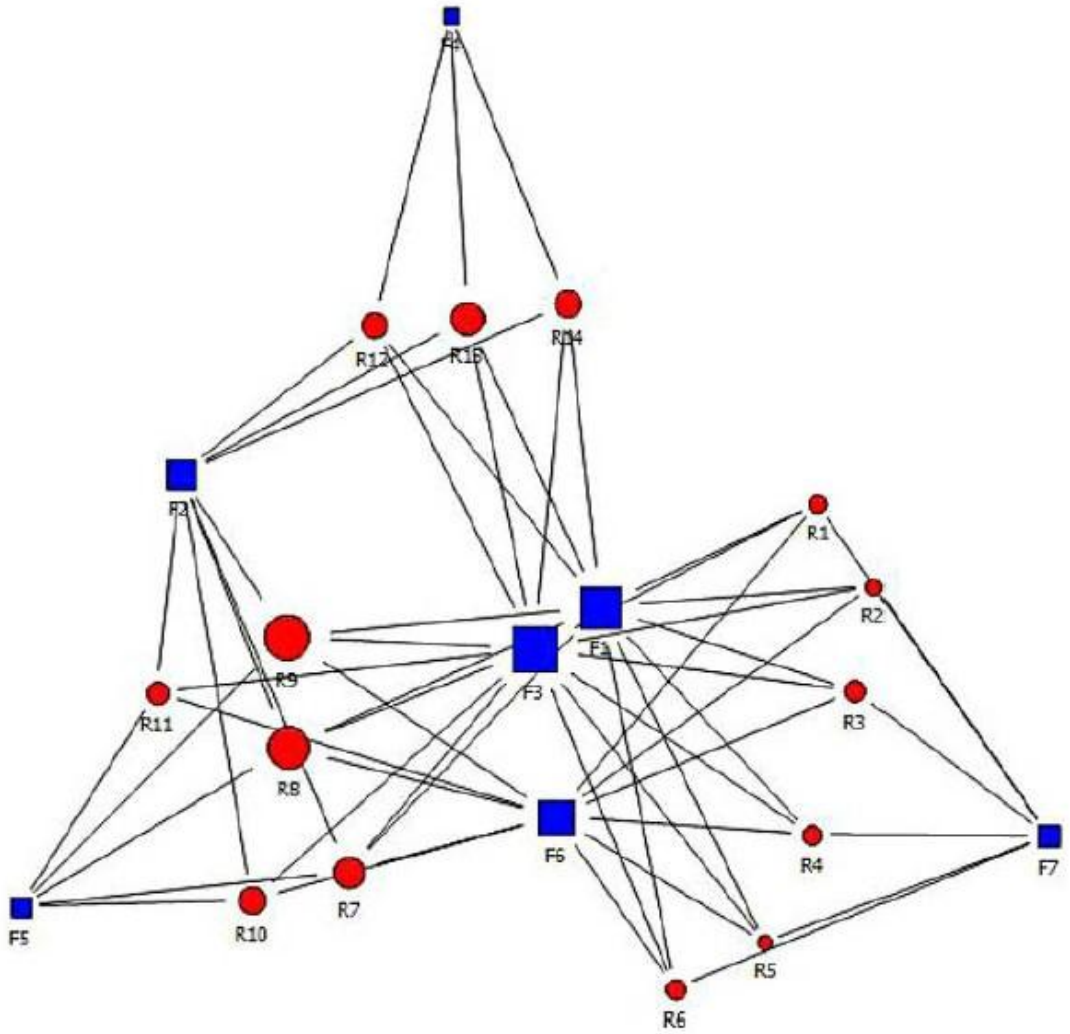


Figure 5 depicting SH connections, degree of interest in the project and degree of influence.

Source: Almahmoud, 2015, p.169

Political mapping was used by Purnomo et al. (2012) to display SHs and their stance, either in opposition to, or support of, the policy. The same paper also presented a policy network map to show the power access among various SH in relation to a particular policy. Solid lines between actors indicated direct access to decision-makers, dashed lines indicated indirect access (see figure 6).

FIGURE 5 *REDD+ policy network map in Jambi*

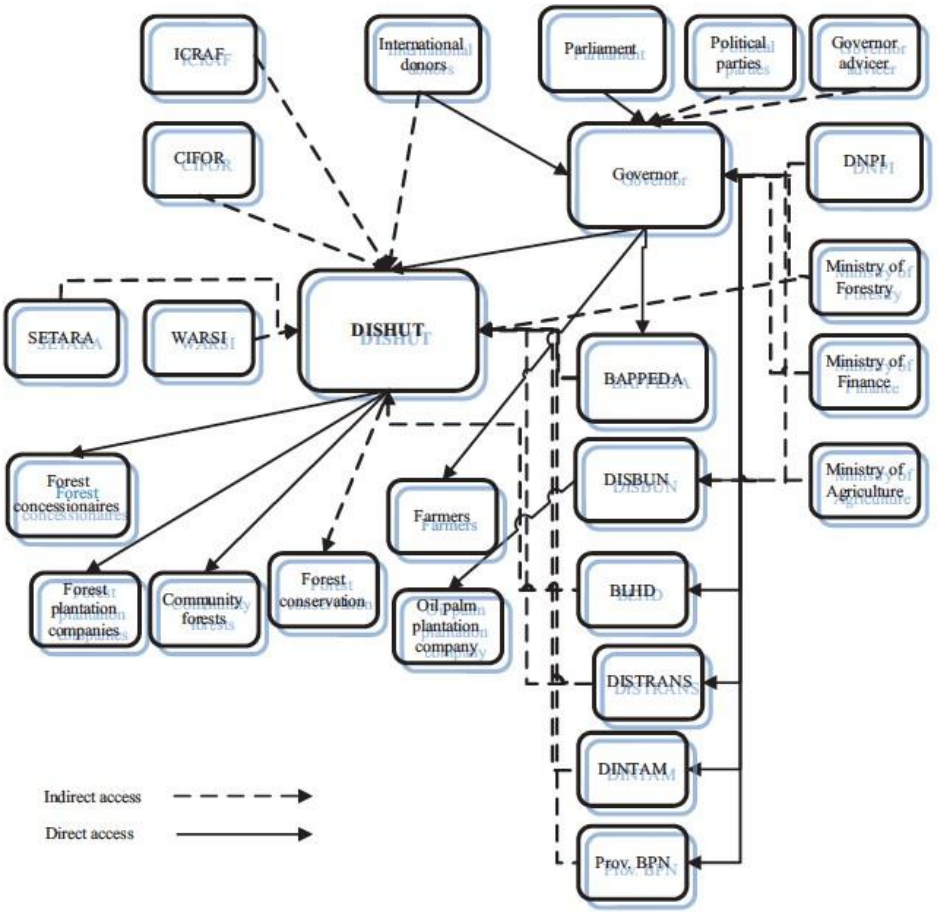


Figure 6: The Reducing Emissions from Deforestation and Degradation plus policy network map

Source: Purnomo et al. 2012, p.85

Hoek and Maubach (2005) presents a range of SH groups, which, despite having opposing positions in relation to the policy remain linked within a harm network map, showing that all SHs may be at risk of adverse effects of a policy, regardless of their stance.

Some articles used more descriptive diagrams to demonstrate SH characteristics and inter-relationships. Mutekanga et al. (2013) mapped SH influence in relation to a specific policy within a triangle diagram. The policy was positioned at the tip of the triangle and SH, represented as various sized circles were positioned relative to the policy. The closer SH were to the policy, the greater their influence on it. The closeness of the circles referred to the degree of cooperation between SHs, and the size of the circles indicated the size of the SH group. See figure 7 below.

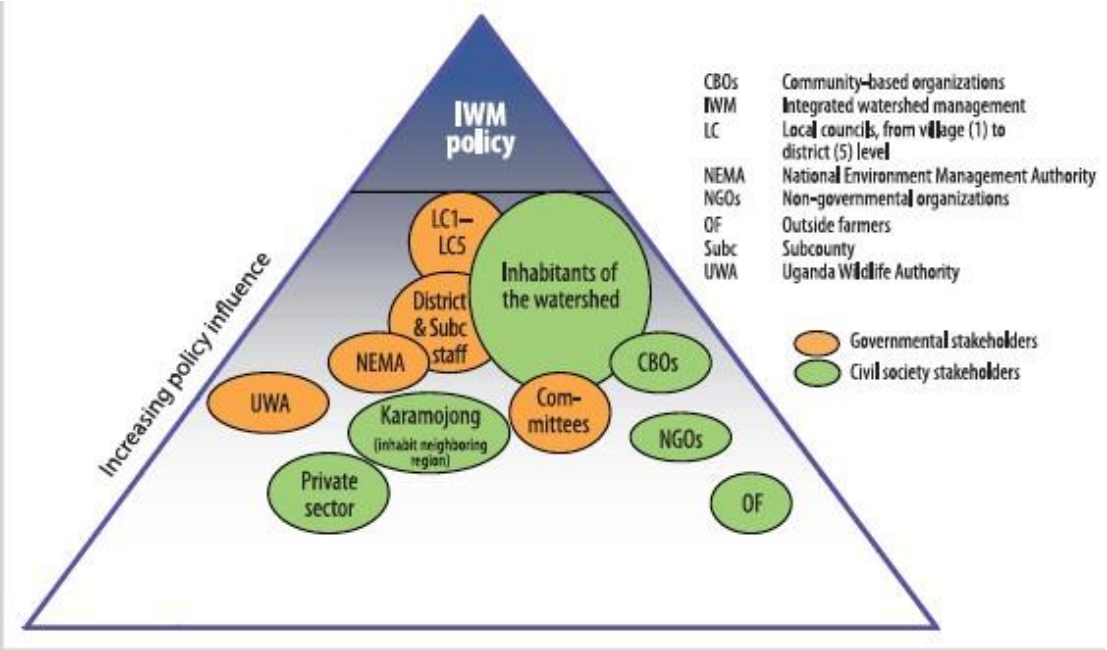


Figure 7. Map of relative influence of stakeholders of the Ngenge watershed.

Source: Mutekanga et al. 2013, p.129

Rastogi et al. (2010) used overlapping circles to illustrate SH's shared or individual advantages or disadvantages relating to specific management strategies of a national park. This helped to identify possible alliances between SHs. The same paper illustrated SH interest, power, inter- relationships and quality of relationships using shapes and colours. SH interests are illustrated by various sized circles, the bigger the circle the greater the interest. Power is illustrated by various sized triangles, the bigger triangles denoting greater power. SHs are connected by lines of varying thickness and colour; the thicker the line, the stronger the relationship, with red lines indicating conflict, green cooperation and black multiple aspects.

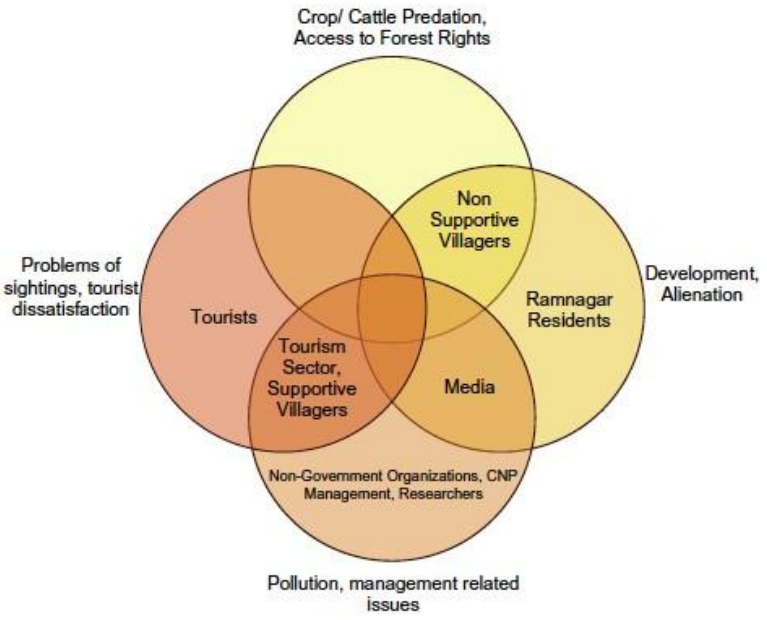


Figure 8. Disadvantages of Corbett National Park for stakeholders. Circles represent stated disadvantages. Stakeholders are grouped according to similarity in stated disadvantages.

Source: Rastogi et al., 2010, p.2960

ABSTRACT

This article presents the results of a systematic review of the methods used to conduct stakeholder analyses (SHAs) within health policy analysis (HPA). Borrowed from organizational and management literature, the application of SHA in the health policy field became increasingly popular in the 1990s following recognition of the pivotal role of policy actors in influencing the direction of policy (Brugha and Varvasovszky, 2000). In response to its burgeoning use, Varvasovszky and Brugha (2000) published a practical guide to conducting SHAs, drawing on relevant literature as well as their own experience. Their guide was specifically intended for use by health policy analysts and researchers.

This review is intended to offer researchers and policy actors an opportunity for reflection on current SHA methods, whilst guiding and encouraging rigorous future application of SHA within HPA. Based on a systematic search of peer-reviewed literature published between 2000 and 2015, this review offers methodological insights drawn from 21 articles reporting the use of SHA. Critical analysis of the methods employed is framed within Varvasovzky and Brugha's seminal guide to conducting SHA within health policy (Varvasovzky and Brugha, 2000), as well as insights gained from a scoping review of SHA methods employed in work outside the health sector conducted by the author, henceforth referred to as the 'scoping review'.

A limited variety of SHA methods were noted in this review, in particular with regards to data collection and presentation of findings. When compared with the scoping review, significantly fewer participatory approaches were reported and most SHAs were retrospective or concurrent, indicative perhaps of a more research- focused approach that

generates insights to inform action, rather than include stakeholders and use the SHA process to directly support policy reform. Health policy analysts and researchers would do well to look outside of the health sector for a wider variety of SHA methods to enrich their work and encourage greater stakeholder participation. Finally, greater transparency in reflecting on the impact of analysts and context in the SHA process would further authenticate accounts of the analysis.

Keywords

Stakeholder analysis, health policy, power, actor, stakeholder analysis methods

Key messages

- Despite the value of SHA in understanding health policy change, only 21 papers explicitly reporting experience in its application within LMIC health policy and programme analysis were identified for a 15 year period (2000 to 2015)
- Although some change is observed over time, most reported studies were conducted for research purposes and report retrospective SHAs, rather than being conducted to support policy change prospectively
- Most papers report studies that follow the methodological approach of Varvasovzky and Brugha (2000), with little variation in methods across papers
- Future SHAs might be strengthened by paying closer attention to potential influences of context and analyst positionality and by drawing lessons from SHAs conducted outside the health sector for more participative approaches

INTRODUCTION

"Health policy analysis is a multi-disciplinary approach to public policy that aims to explain the interaction between institutions, interests and ideas in the policy process" (Walt et al., 2008, p.308). Described as central to health reform (Walt and Gilson, 1994) HPA can retrospectively offer crucial insights into the success or failure of a policy, or prospectively, guide efforts to support policy development and implementation towards its objectives. A comprehensive HPA needs to incorporate the actors, power, processes and context in which decisions are made and policy is developed and implemented (Buse et al. 2007). SHA is a tool widely recognized to support achievement of this purpose by "generating knowledge about actors – individuals and organisations – so as to understand their behaviour, intentions, interrelations and interests; and for assessing the influence and resources they bring to bear on decision-making or implementation processes" (Varvasovszky and Brugha, 2000, p.338). In response to SHA's increased application in the health policy arena, Varvasovszky and Brugha, (2000) published a 'How to' guide specifically aimed at those using SHA "for the analysis and influencing of health policy" (Varvasovszky and Brugha, 2000, p.338).

Despite this guide and broad-based consensus on the applicability of SHA among policy actors, Gilson et al. (2012) noted that 12 years on, few empirical studies existed that shed light on the methodological application of SHA in HPA. Whilst the potential value of SHA in the comprehensive analysis of health policy processes is well understood, Varvasovszky and Brugha (2000) caution that biases exist which require careful consideration of the methods used to conduct a SHA. Bearing in mind that the rigour and usefulness of SHA is dependent on the use of sound, appropriate methods, the aim of this research synthesis is to explore

the empirical studies published in the 15 years since Varvasovszky and Brugha published their guide. Specific focus will be on the methodology undertaken in each study's SHA. This paper therefore presents the results of a systematic review of the *methods* used to conduct SHA of health policies or intervention programmes, and *not* the findings.

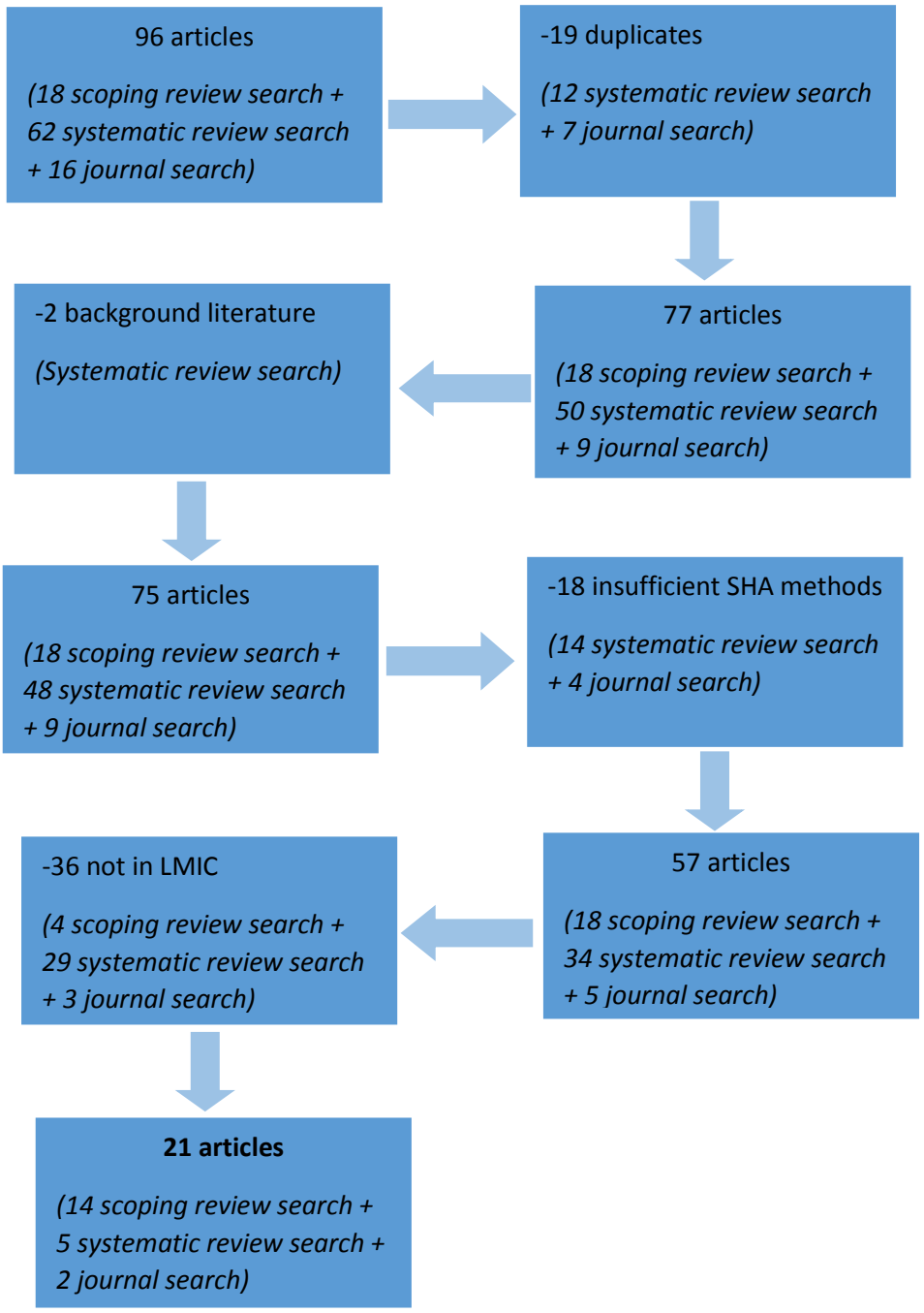
This information is intended to offer researchers and policy actors an opportunity for reflection on current SHA methods, whilst guiding and encouraging rigorous future application of SHA within HPA.

METHODS

In an effort to conduct a thorough and systematic search for relevant articles, a three-stage process was employed. First, 18 potentially relevant articles found in the earlier SHA scoping review were set aside for possible inclusion in this systematic review. Further exploratory searches within Scopus, the biggest abstract and citation database, with "over 21,500 peer-reviewed journals covering the fields of science, technology, medicine, social sciences, arts and humanities" (www.scopus.com), were conducted to finalise search terms. The initial searches were too specific and yielded very few articles. Once a more sensitive search string was determined, a second search was conducted, again in Scopus: *"stakeholder analys*" AND health polic**, producing 62 articles. Finally, a hand search of the five most relevant journals for HPA work in LMICs (Health Policy and Planning, Health Policy, BMC Health Services Research, Social Science and Medicine, Health Research Policy and Systems journals) was undertaken yielding 16 additional papers as potentially relevant. A total of 96 papers were identified through this 3-stage approach, including many duplicates - pointing to a comprehensive search process. After removing duplicates and articles deemed irrelevant

upon further reading (due to shortcomings in their description of the SHA methods, which failed to go beyond asking stakeholders opinions pertaining to particular policy processes, or as they were not reporting LMIC experience), a final set of 21 articles were identified and included in this review. Where referring to multiple papers, a representative number will be used. When referring to a single paper, the Harvard referencing style will be used. See Appendix A for a complete list of papers with corresponding numbers.

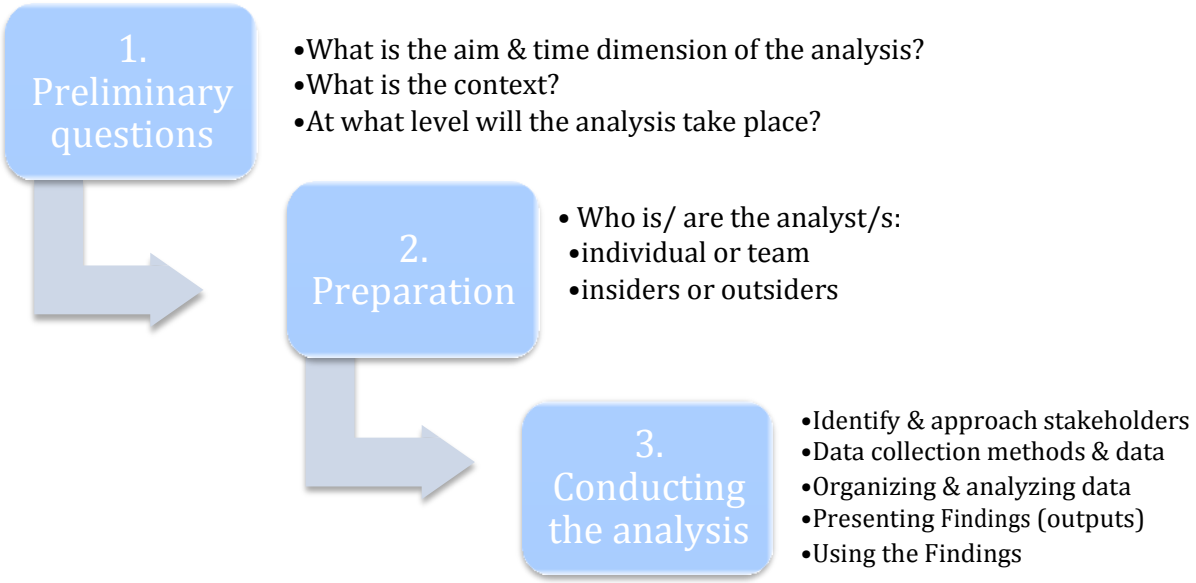
Diagram 1: Systematic review article selection process



Varvasovszky and Brugha's SHA guide

Varvasovszky and Brugha (2000) present the SHA process in three parts; and they recommend consideration of specific factors under each part (Figure 1).

Figure 1 Varvasovszky and Brugha SHA process flow



This paper uses Varvasovszky and Brugha's (2000) SHA guidelines to critically analyse the SHA methods presented in the 21 papers included in this review. Other questions posed by Varvasovszky and Brugha (2000) for use when conducting SHAs, are also considered such as: to what extent do articles reflect on the time sensitivity of the analysis and is the analysis repeated if it spans a considerable period of time? Is the influence of context, such as change in government, on policy processes and actors accounted for? Do analysts reflect on their role in the SHA process?

Varvasovszky and Brugha (2000) caution policy researchers to remain cognizant of their potential impact on the analysis and the need to find balance between their roles as analysts versus advocates for positive public health change.

Whilst it may not be reasonable to expect much detail pertaining to steps one and two of Varvasovszky and Brugha's guide, given journal article word limitations, some such insights were revealed in the methods and study limitation sections of articles. The greatest detail to emerge from the papers, however, relates to the final step three.

Finally, further analysis of the 21 papers was guided by outcomes of the prior scoping review that was conducted to allow for the description of SHA methods used outside the health sector, where the use of SHA pre-dates its use in HPA by some decades. The scoping review revealed a range of SHA methods with a clear distinction between participatory methods that actively involved stakeholders for a more direct impact on policy reform and more traditional methods that saw stakeholders as passive study participants. Further noted was the range of stakeholder attributes used to determine stakeholder inclusion in the SHA, as well as inform the policy or programme under analysis. For example stakeholder attributes of power and position assessed through the SHA process are then used to inform strategies for stakeholder engagement. Findings from the scoping review provided a foundation for comparison with this systematic review of SHA application within the health sector, and HPA in particular.

In order to obtain relevant information from each selected article a data extraction table was developed (Table 1). This data extraction was guided by the activities listed under Varvasovszky and Brugha's (2000) three-step SHA process as well as

prominent findings from the scoping review, some of which mirrored that of Varvasovszky and Brugha's (2000) guide, with one addition, 'Stakeholder attributes'.

Table 1 Systematic review data extraction table

General article information	
Article title, authors, journal	
Context	
Level at which SHA takes place	
V & B Phase 2. Preparation	
Analysts & analysis team	
V & B Phase 3. Conducting the SHA	
Identification & approach of SH	
Stakeholder attributes	
Data collection methods & data	
Organising & analyzing data	
Presenting findings	
Using the findings	

Key: *Varvasovszky and Brugha*
Scoping review
Varvasovszky and Brugha and scoping review

RESULTS AND DISCUSSION

Varvasovszky & Brugha Step 1: Preliminary questions (Figure 1)

Aim of SHA

Varvasovszky and Brugha (2000) propose that the aim of a SHA corresponds to its use in policy, management or project implementation. None of the SHAs described in articles reviewed here focused on the management field. The majority of articles reported SHAs within health policy formulation or reform, while seven described

SHAs of health programme or project implementation. Policy-aimed SHAs investigate health policies that govern the development and implementation of health services, while programme-aimed SHAs looked at health programmes that are implemented or planned for implementation as a result of specific health policies. The remaining articles investigated the role of evidence-based decision-making in health policy development and did not fit under any of the three fields suggested by Varvasovszky and Brugha (2000), prompting the formation of a new 'aim' category: 'research-aimed' papers. Jain et al. (2014) sought the perspectives of a small group of stakeholders on the role of health technology assessment (HTA) in evidence-informed decision-making on policy in the Indian health system, while Bedregal and Ferlie, (2001) explored the role of evidence-based primary healthcare changes in Chile. A third research-aimed paper conducted a cross-country SHA to understand stakeholder influence in six LMICs on research and policy-making (Hyder et al. 2010). One policy-aimed SHA, Gilson et al. (2012) and one programme-aimed SHA, Makan et al. (2015) (see papers marked with * in Table 2) were categorized as both a policy/ programme and research-aimed SHA. Gilson et al. (2012) used the experience of their SHA to support evidence-informed universal health coverage (UHC), while Makan et al. (2015) used their SHA to illustrate its effectiveness in reducing the research/ policy gap of mental health programmes. These papers propose the use of SHAs to bridge the gap between research and policy with the aim of strengthening evidence-informed health policymaking. This is a welcome addition to SHA enquiry as an especially useful approach in LMIC settings where resources are constrained.

Table 2 SHA aim

Policy aimed papers and focus	Programme aimed papers and focus	Research aimed papers and focus
1- A retrospective analysis of the change in anti-malarial treatment policy: Peru. Williams et al. 2009	3- SHA for a maternal and newborn health project in Eastern Uganda. Namazzi et al. 2013	*4- SHA of the PRIME: baseline findings. Makan et al. 2015
2- Mapping and Analyzing Stakeholders in China's Essential Drug System by Using a Circular Model: Who We Should Deal with Next? Shao et al. 2015	4- SHA of the PRIME: baseline findings. Makan et al. 2015*	5- Analysis of a small group of stakeholders regarding advancing health technology assessment in India. Jain et al. 2014
7- Universal financial protection through NHI: a SHA of the proposed one-time premium payment policy in Ghana. Abiiro & McIntyre 2012	9- Assessment of the Turkish health care system reform: a SHA. Akinci et al. 2012	6- Evidence based primary care? A multi-tier, multiple stakeholder perspective from Chile. Bedregal and Ferlie 2001
8- HIV/AIDS policy-making in Kyrgyzstan: a stakeholder analysis. Ancker and Rechel 2015	10- Prospects for the sustainability of delivering the basic package of health services in Afghanistan: a SHA. Haidari et al. 2014	18- Stakeholder analysis for health research: Case studies from low- and middle-income countries. Hyder et al. 2010
12- Players and processes behind the national health insurance scheme: a case study of Uganda. Basaza et al. 2013	11- Efficiency of immunization services in the Gambia: Results of a SHA. Sarr 2010	*21- Using SHA to support moves towards universal coverage: lessons from the SHIELD project. Gilson et al. 2012
13- Stakeholder perceptions of a total market approach to family	16- Implementation of an Insecticide-Treated Net Subsidy Scheme Under a	

planning in Nicaragua. Drake et al. 2011	Public-Private Partnership for Malaria Control in Tanzania - Challenges in Implementation. Njau et al. 2009	
14- Towards universal coverage: a policy analysis of the development of the National Health Insurance Scheme in Nigeria. Onoka et al. 2015	17- Hygiene and Sanitation Promotion Strategies among Ethnic Minority Communities in Northern Vietnam: A Stakeholder Analysis. Rheinländer et al. 2012	
15- Exploring Health Stakeholders' Perceptions on Moving Towards Comprehensive Primary Health Care to Address Childhood Malnutrition in Iran: A Qualitative Study. Javanparast et al. 2009		
19- Historical account of the NHI formulation in Kenya – experiences from the past decade. Abuya et al. 2015		
20- The making of nursing practise law in Lebanon: a policy analysis case study. El-Jardali et al. 2014		
*21- Using SHA to support moves towards universal coverage: lessons from the SHIELD project. Gilson et al. 2012		

* Indicates papers that fell into two categories

According to Varvasovszky and Brugha (2000), determining the *aim* of an SHA helps to identify its *scope* and *time dimension*. This information is useful in planning the SHA and determining the resources required. Time dimensions are described as past, present and/ or future, i.e. retrospective, concurrent or prospective while the

scope of a SHA is described as being narrow or broad.

Time dimension

The majority of articles reviewed here were concurrent (11) and retrospective (7) analyses and the remaining three papers were prospective (Table 3). Two different types of concurrent SHAs emerged: Type 1 tested proposed amendments or changes to current, existing policies or programmes (4, 5, 6, 13, 15 and 18). For example, Drake et al. (2011) assessed stakeholder perceptions of a proposed total market approach (TMA) to family planning in Nicaragua. The majority of Type 1 concurrent SHAs focused specifically on how evidence-based interventions could improve existing health policies (4, 5, 6 and 18). Type 2 concurrent SHAs analysed existing policies or programmes in order to generate insights for improvement or likelihood of sustainability (8, 9, 10, 11 and 17). Haidari et al. (2014) for example, investigated the preparedness of stakeholders to sustain Afghanistan's Basic Package of Health Services (BPHS) without donor assistance. The majority of Type 2 analyses analysed health programmes (8, 10, 11 and 17) and only one was policy-aimed (9).

Of the seven retrospective articles, one analysed a health programme (16) while the rest (1, 12, 14, 19, 20 and 21) looked at health policies, four of which focused on NHIS policies in sub-Saharan Africa (12, 14, 19 and 21). Njau et al. (2009) (16) conducted a retrospective analysis of the pre-implementation and implementation phases of an insecticide-treated net subsidy scheme in Tanzania. All the policy-aimed retrospective articles looked at the early stages of policy i.e. policy proposal stage (14), agenda-setting and formulation stage (1, 12), design stage (19, 21) or policy-

making stage (20). The time period of retrospective analysis ranged from 10 years (1, 20) to 23 years (14). Prospective analyses informed strategies for newly proposed health programme (3) and policies (2, 7).

In their review of SHAs, Brugha and Varvasovszky (2000) note that much health policy research at that time were retrospective or concurrent, lacking the more structured approach of prospective SHAs taken by development managers and organisations. This current review reveals much the same in that the majority of papers were concurrent, followed by retrospective analyses. This finding, as well as the fact that only 21 articles describing the use of SHA methods over the last 15 years were found, points to a lack of development of SHA in HPA within LMICs.

Table 3 provides an overview of the geographical region, focus, aim and time dimension of all papers reviewed here.

Table 3 Paper, focus, aim and time dimension per geographical region

South America	Africa	Asia
Paper 1, Peru Anti-malarial treatment policy Retrospective	Paper 3, Eastern Uganda Maternal and newborn health programme Prospective	Paper 2, China Essential drug system policy Prospective
Paper 6, Chile Evidence-based practice in primary care (research) Concurrent type 1	*Paper 4, Ethiopia, India, Nepal, South Africa, Uganda Evidence-informed mental health care (research) Prospective	*Paper 4, Ethiopia, India, Nepal, South Africa, Uganda Evidence-informed mental health care (research) Concurrent type 1
Paper 13, Nicaragua Total Market Approach to	Paper 7, Ghana NHIS policy	Paper 5, India Health Technology Assessment in evidence-

family planning (policy) Concurrent type 1	Concurrent	based health policy (research) Concurrent type 1
	Paper 11, The Gambia Immunization programme Concurrent type 2	Paper 8, Kyrgyzstan HIV/ AIDS policy-making Concurrent type 2
	Paper 12, Uganda NHIS policy Retrospective	Paper 9, Turkey Health Transformation Programme Concurrent type 2
	Paper 14, Nigeria NHIS policy Retrospective	Paper 10, Afghanistan Basic Package of Health Services programme Concurrent type 2
	Paper 16, Tanzania Insecticide-Treated Net subsidy programme Retrospective	Paper 15, Iran Primary health care to address childhood malnutrition (policy) Concurrent type 1
	*Paper 18, Bangladesh, Uganda, West Bengal, China, Afghanistan, Nigeria Research-policy interface Concurrent type 1	Paper 17, Northern Vietnam Hygiene and sanitation programme Concurrent type 2
	Paper 19, Kenya NHIS policy Retrospective	*Paper 18, Bangladesh, Uganda, West Bengal, China, Afghanistan, Nigeria Research-policy interface Concurrent type 1
	Paper 21, South Africa, Tanzania	Paper 20, Lebanon Nursing practice law

	Universal coverage/ NHIS (research) Retrospective	(policy) Retrospective

* Indicates papers set in two continents

Scope

"The scope is broad where a wide range of actors needs to be considered, especially where the policy context is complex and there is no clearly defined policy direction." (Varvasovszky and Brugha, 2000, p.338). A narrow focus applies to the SHA of a specific policy or programme, which is more focused and goal-directed and conducted within a relatively stable and predictable context. Apart from Ancker and Rechel (2015, p.9) direct reference to the scope of their analysis of Kyrgyzstan's HIV/AIDS policies as "intentionally kept broad and not focused on any particular policy", it was not clear which SHAs were purely narrow or broad in scope.

Looking only at the aim of each SHA, a vast majority reviewed, 18 (1 – 5, 7, 9 – 17, 19 – 21) focused on a specific policy or programme, however consideration of this factor alone does not fully determine the scope. Complex policy contexts, cross- country analysis and retrospective time dimensions (discussed below) call for the inclusion of multiple stakeholders and results in a broader, less predictable environment in which to conduct a SHA. Contextual and time factors meant that many of the 18 specific policy or programme analyses were actually broad in scope. For example, a paper that assessed the usefulness of SHA in the mental health research- policy interface was conducted across five countries and so, although it focused on a specific mental

healthcare programme, it included stakeholders from six different groups across five countries and was therefore classified as broad for this review (4). Analysis of the implementation of an existing hygiene and sanitation programme in rural communities in Northern Vietnam focused on one specific health promotion programme, however the context was complex as the region was home to a variety of ethnic minority groups who had not been considered when the health promotion approach was developed and as a result, were not benefitting from the intervention (17). Finally, a retrospective SHA of the development of Nigeria's NHIS covered 23 years, included a number of stakeholders and considered multiple political changes over the time period making it broad in scope, despite its singular focus (14).

Context

"Understanding the culture and context is necessary for deciding how to interact with stakeholders, collect and analyse data." (Varvasovszky and Brugha 2000, p.340). Varvasovszky and Brugha (2000) discuss context in relation to culture, history, and economic and political climate of the region in which the SHA is being conducted.

Much of the context in which SHAs occurred was discussed in the background section of papers reviewed here, e.g. the political climate, historical factors shaping the current environment, internal and external influences, policy practices and priorities etc. Such information indicated analyst's awareness of the greater context in which the SHA was set. However the link between these insights and the potential or actual impact on the SHA process was not always presented. The lack of reflection on this issue made it difficult for the reader to understand how analysts navigated this context or accounted for it in their analysis.

Table 4 provides a summary of the contextual issues considered by eight papers. A ninth paper aimed at encouraging SHA in researching and developing UHC reforms, describe various contextual factors that influenced South African and Tanzanian UHC debates and offer examples of each (Gilson et al., 2012) (Box 1).

Structural, e.g. a highly fragmented and poorly regulated private health system

Situational, e.g. competing policy priorities that see health insurance reform as only one of many

Cultural, e.g. feelings of solidarity within existing community networks

Exogenous, e.g. dependence on donors allows donors influence in national health policy debates

Box 1 contextual factors influencing stakeholders involved in universal coverage policy debates in South Africa and Tanzania (Gilson et al. 2012)

Table 4. Articles that explicitly considered contextual factors in their SHA

Paper, aim, time dimension	**Context considered**
1, Policy, Retrospective	Noted the importance of paying attention to economic, environmental, political, legal, socio-behavioural and other contextual factors that may impact the policy change linked to malaria drug policy formation and implementation in Peru. Applied this acknowledgement by asking stakeholder perceptions on the process of change and wider socio-political context in which the change occurred.
6, Policy, Concurrent type 1	SHA carried out in a context of change during with the election of a new President of the Republic of Chile. Concluded that if implementation of EBM policies is to succeed, the context, the actors and processes involved must be considered more fully.
12, Policy, Retrospective	"The study provides a contextual analysis of the development of the NHIS policy within the context of national policies and processes." p.1. Analysts assessed "real-life context" related to the NHIS policy development. The paper has two parts, the first of which is an overview of the socio-economic and political context underlying the NHIS development.
13, Policy, Concurrent type 1	Explored the feasibility of greater reliance on public-private partnerships to deliver family planning services

	to women in Nicaragua within a context of decreased funding, but strong political support for family planning.
14, Policy, Retrospective	Analysed the influence of context on Nigeria's NHIS policy process and found that the context in which the policy developed (change in regimes, dependence on development aid) influenced the process in critical ways.
15, Policy, Concurrent type 1	Incorporated context in their data analysis process, "descriptive analysis; allowed understanding of the context of the interview/focus group by breaking down the data and generating themes".
17, Programme, Concurrent type 2	Identified that one of the main barriers for effective implementation of a rural hygiene and sanitation programme amongst various ethnic groups was context unadjusted promotion strategies, such as a weak focus on gender and language barriers, which prevented ethnic minorities from benefiting from the programme.
20, Policy, Retrospective	Analysed the context in which a Lebanese nursing practice law that was never implemented was developed by aiming interview questions at providing insight into, among other things, promoting factors and barriers presented by the context in which the draft law was developed.

Level at which SHA took place

The level at which a SHA is conducted - local, regional, national or international – influences how data are collected and who is considered a stakeholder (Varvasovzsky and Brugha, 2000). This review revealed three levels, with the vast majority of articles (17) situated at national level, three international level analyses and one local level SHA. Some of the national level SHAs included stakeholders from, among other, regional and community levels in their analysis. For example, Namazzi et al. (2013) carried out a SHA of a maternal and newborn health programme at a national level as well as within four districts of Eastern

Uganda. Government officials and development partners were interviewed at national level, district health team members at district/regional level and community members at community/ local level. By interviewing stakeholders at all levels, analysts were able to generate insights into political will to implement the programme, how the programme would be integrated into existing health services, as well as grassroots factors that might affect ustilisation by the end-user. A SHA of a hygiene and sanitation programme among rural communities in Northern Vietnam was the only article to report on a regional and local-level SHA (Rheinlander et al. 2012).

International and cross-country SHAs may typically rely more on secondary than primary data sources as access to stakeholders for interviews can be difficult (Varvasovzsky and Brugha, 2000), this was however not the case with Hyder et al. (2010) who conducted a SHA across six African and Asian countries where SHA teams were stationed. Each country team used the same 12-step SHA guideline to guide interviews with stakeholders from 11 pre-determined categories. This approach offers a good example of how to ensure standardization for analysts looking to conduct cross-country SHA.

Information pertaining to step one: Preliminary Questions, in particular the way that context was navigated to account for its impact on the analysis was found lacking, despite the fact that almost half of the articles cited the use of Varvasovzsky and Brugha (2000).

Varvasovszky and Brugha Step two: Preparation (Figure 1)

Analyst and analysis teams

SHAs are performed by individuals, a team or individuals with the support of key informants (Varvasovzsky and Brugha, 2000). As data are largely qualitative a team approach can ensure a more rigorous and balanced analysis as various interpretations are considered and discussed before final analysis is made (Varvasovzsky and Brugha, 2000). An individual analyst however can ensure a more uniform approach to data collection (Varvasovzsky and Brugha, 2000). The majority of articles reviewed here conducted the SHA through a team while two reported involvement of a single analyst (6, 11).

A further element to this aspect of an SHA includes the position and affiliation of the analyst/s. Varvasovzsky and Brugha (2000) describe analysts as insiders or outsiders depending on whether or not they are directly involved in the issue under review or part of the organization or "cultural context" in which the SHA is being conducted (Varvasovzsky and Brugha, 2000 p.340). An analyst may be both; an insider in terms of the issue being analysed, but an outsider to the organization conducting the analysis (Varvasovzsky and Brugha, 2000). Stakeholder's perception of analysts can determine their willingness to participate, as well as the way they interact with the SHA.

Most papers went no further than listing the institutions that the researchers were associated with. Only seven papers reflected on the make up and/ or positionality of the analysis team, three of which cite Varvasovzsky and Brugha's (2000) discussion on stakeholder analyst/s (3, 17 and 18). Generally, papers reflected on the strengths and limitations of the number of analysts, analyst's positionality in relation to the context or issue of focus, the influence of non-research partners as well as the benefits of a multidisciplinary team of both insider and outsider analysts. Outsider analysts offered more objectivity in their analysis while insider analysts had important contextual knowledge to help interpret cultural cues, non-verbal interactions and situational data.

This review revealed that analysts don't usually report on how their role might affect the SHA process. Further to providing these insights for the reader, transparent analyst reflexivity can also indicate the broader SHA aim. For example, it may be expected that health policy actors or government departments intend for the SHA to have a direct impact on the policy under review. SHAs conducted by research institutions that may not be active policy actors however, may seek rather to broaden knowledge on the issue than directly affect policy change.

Varvasovzsky and Brugha Step three: Conducting the analysis (Figure 1)

Varvasovzsky and Brugha (2000) refer to stakeholder characteristics in their discussion on presenting SHA findings. However, the previous scoping review revealed stakeholder attributes as central to the process of 'Conducting the analysis'

and are therefore discussed here under ‘Conducting the analysis’, as a consideration on its own. The following elements of ‘Conducting the analysis’ are unpacked:

1. Identifying and approaching stakeholders
2. Data collection methods and data
3. Stakeholder attributes
4. Organising and analysing data
5. Presenting the findings
6. Using the findings

Identifying and approaching stakeholders

Stakeholders are described as “actors who have an interest in the issue under consideration, who are affected by the issue, or who – because of their position – have or could have an active or passive influence on the decision-making and implementation processes” (Varvasovszky and Brugha 2000, p. 341). They go on to describe a two-stage process typically used to identify stakeholders, starting with an a priori list based on analysts’ familiarity with the issue and knowledge gained from secondary data sources. The list is then expanded through a snowball technique, which sees initial stakeholders identifying further stakeholders until a comprehensive list is formed. Articles were, for the most part very transparent on whom the stakeholder participants were, summarizing stakeholders in table or list format.

Just over half of the SHA reviewed here made use only of purposive sampling to identify stakeholders, relying on analysts prior knowledge of the issue at hand

gained from experience and/ or secondary data sources such as document and literature reviews to create a list of stakeholders. Three articles (2, 9, 14) reported to use key informants or experts to identify additional stakeholders or, as seen in Onaka et al. (2015), to narrow down an initial broad list of stakeholders purposely selected by the researchers. For the purpose of this review, this was not considered a snowball sampling technique, as these additional stakeholders were not identified by other stakeholders, but rather in a consultative manner with knowledgeable actors not included in the SHA. Nine articles (1, 5-8, 10, 16, 20, 21) reported the use of a two-stage approach to identify stakeholders that included purposive followed by snowball sampling whereby those purposely-selected stakeholders identified additional stakeholders. One article, Sarr (2010) did not offer insight into the stakeholder identification process.

Many, but not all papers offered insight into how stakeholders were purposely identified. Basaza et al. (2013) for example merely stated that stakeholders at the center of Uganda's NHIS design process were selected to participate in their SHA. However numerous purposive sampling approaches were detailed. Stakeholders were mostly identified based on pre-determined criteria or characteristics such as affiliation to certain organisations or groups (beneficiaries, policymakers, local government etc.) or stakeholder knowledge/ experience (Table 7 and 8). These organisations or groups were also purposely identified by analysts as central to the policy process, in accordance with secondary and/ or primary data information. The second most common purposive sampling approach was to collaborate with key experts in the field or context. Two papers made use of a framework to select

stakeholders; Makan et al. (2015) developed their own framework to guide selection of purposely identified stakeholders and Jain et al. (2014) relied on the World Health Organisation (WHO) framework for evidence-informed healthcare policymaking. Some outlier examples include the specific exclusion of government stakeholders in favour of private sector stakeholders (13), convenience sampling to access beneficiaries at a local health centre (15), seeking less-inhibited insights from stakeholders who once were, but were no longer affiliated with organisations central to an NHIS policy (19) and, a cross-country SHA of a mental health programme where each country team select stakeholders from a pre-determined list so as to ensure standardization across sites (18). This same article was the only one to report to actively seek neglected stakeholder groups.

Stakeholders can be approached or contacted in a number of ways such as via phone or email. Varvasovszky and Brugha (2000) argue that stakeholder perception of those that invite them to participate can determine their willingness to participate. No articles reflected on how initial contact may have encouraged or deterred stakeholders from participating, further indication of how analysts' positionality is not reflected on in the articles reviewed here.

Predominantly purposive approaches to identify stakeholder groups and individuals central to the topic of focus without consideration of neglected stakeholders (apart from Hyder et al., 2010) meant that data collected and analysed represented dominant discourse from the 'usual suspects', offering safe, expected insights to guide stakeholder management strategies and inform policy reform.

Data collection methods and data

As seen during the stakeholder identification process, data collection starts prior to stakeholder selection with data drawn from interviews and/ or secondary data such as document reviews to identify relevant stakeholders, as well as to better understand stakeholders and the issue at hand. Once stakeholders have been selected, data collection about them and how they fit into the picture of focus can begin. Again, this data can be collected from primary sources, i.e. the stakeholders themselves, or secondary sources. The type of data collected can be qualitative and/ or quantitative. Varvasovszky and Brugha (2000, p.341) guide analysts to consider qualitative data collection methods such as interviews as a starting point in order to "preclude premature focusing on a limited number of aspects of the issue". More structured tools can then be introduced to quantify data, but premature use of quantitative tools may cheat the analysis of identifying important issues that arise more organically out of qualitative data collection processes. (Varvasovzsky and Brugha, 2000).

According to Varvasovszky and Brugha (2000) a broader, less focused SHA is best suited to an extensive qualitative data collection process. This is because there is less known and qualitative methods are better suited to fully explore the issue. On the other hand a narrow SHA focused on a specific policy or programme where the stakeholders are known may allow qualitative data collection to be cut short, and earlier use of quantitative tools introduced.

However, almost all the articles reviewed here (19) made use of qualitative data collection methods only, irrespective of focus. Only one paper used a mixed methods approach and one a quantitative approach. Hyder et al. (2010) used primary and secondary data sources to gather qualitative data on stakeholder perspectives and concerns related to the proposed project, before quantifying power/ influence and level of agreement on a five-point scale. Shao et al. (2015), a narrow-focused SHA described quantitative methods used to develop a circular model (see 'Presenting findings' section) to map and analyse stakeholders in China's essential drug system. Bourne and Walker's Vested-interest Impact Index quantified the probability and level of stakeholder impact on the policy and Stefan Olander's Stakeholder Impact Index quantified effects of stakeholders on the policy to determine how stakeholders would respond to essential drug policy change.

Half of the qualitative data collection papers collected primary and secondary data. The remaining half only collected primary data. These data were drawn from routine

sources such as interviews [semi-structured (5, 11, 13 and 20), structured (9, 13), questionnaire-based (6, 13), informal (17)], FGDs, workshop, panel discussion (20), hypothetical scenario (13), document review [policy documents, formative research surveys (4, 12), academic literature (8)], media (7), and situational analysis (4). In many instances, primary data was used to verify or fill gaps in secondary data and vice versa. In piecing together the historical process of Kenya's NHIS formulation, Abuya et al. (2015) used primary data from interviews to clarify differences found across secondary data from document reviews. In the reverse, Onoka et al. (2015) conducted interviews with Nigerian NHIS stakeholders and used secondary data to check validity. Haidari et al. (2014) verified data from both angles; interview data was checked against desk-review data of relevant documents while financial data from document reviews were backed by interview data.

Qualitative, primary data collection methods mostly followed standard approaches such as interviews and FGDs. A more creative data collection method saw Drake et al. (2011) presenting stakeholders with hypothetical Total Market Approach scenarios to gauge their perception on the preferred approach to public-private partnership, a recurring method observed in the scoping review. For the most part, stakeholder views and opinions were collected and analysed by the researchers alone, they were not involved in developing final policy recommendations. In contrast to the scoping review, only one paper reviewed here reported participatory approaches. Williams et al. (2009) engaged stakeholders in developing a timeline of key events during the Peruvian anti-malarial treatment policy reform. A 'master' timeline was developed based on participants' individual timelines. Information that didn't match with the master timeline was discussed with participants to generate consensus. As such, all

stakeholders were in agreement on the final master timeline. Further to this, a draft of the findings was circulated to key stakeholders who raised issues for clarification until mutual agreement was reached.

Stakeholder attributes

As seen with identification of stakeholders, stakeholder characteristics are considered at the start of a SHA to determine who stakeholders are. It is also the dominant form of data collected. Akinci et al. (2012) for example, determined key stakeholders according to one of three roles assumed in Turkey's HTP: direct responsibility, potential to be affected and contextual analysts and experts. Stakeholder attributes are then further assessed and generated through the SHA. Akinci et al. (2012) then used the SHA to analyse stakeholder characteristics of knowledge, interest, position, potential alliances and ability to affect the policy process.

Attributes sought for stakeholder identification

Most papers reviewed here report use of more obvious aspects to purposely identify stakeholders, e.g. affiliation to specific groups (Table 5). A handful of papers report the use of both hidden qualities, such as influence or position, and obvious characteristics to identify stakeholders for inclusion (Table 6), while Namazzi et al. (2013) prioritised stakeholders based only on the type of influence they held.

Table 5 Obvious stakeholder characteristics inclusion criteria

Obvious stakeholder characteristics used for stakeholder identification	Papers
Stakeholder affiliations to organisations or groups directly involved in issue of focus	9, 12, 13, 14, 16, 17
Stakeholder knowledge and experience	1, 2, 9, 10, 15, 20
Beneficiaries of the proposed reform	3, 7, 9, 18
Stakeholder profession	6, 11, 19
Stakeholder role in various government tiers	6, 7, 11, 18

Table 6 Obvious and hidden stakeholder characteristics inclusion criteria.

Paper	Stakeholder characteristics used for stakeholder identification
4	Those with a "stake in" and influence over research, as well as representatives from six specific groups traversing three levels of the health system
8	Knowledge, experience, involvement and influence and willingness to participate
21	Decision-making authority, interest, those affected by the reform, representative groups or individuals from organisations
5	Supportive position, beneficiaries of HTA and policymakers
3	Prioritized based on their potential to benefit, weaken or strengthen the intervention

Characteristics assessed through the SHA

Most SHAs sought to generate information about hidden stakeholder qualities such as power, position and interests (Table 7). One SHA only assessed obvious stakeholder attributes of roles and responsibilities in implementing a rural health programme (17), whilst another assessed both obvious (involvement in and potential impact on stakeholder of proposed action) and hidden (interest, power, position) characteristics regarding a mental healthcare programme (4). As seen in

the scoping review of SHAs outside the health sector, power and influence were used interchangeably in most articles reviewed here, and was the most pervasive attribute assessed (Table 8). Again, similar to the prior scoping review, various definitions of power emerged across articles (Box 2). In minimal instances, power was quantified by the presence or absence of resources, but was ultimately defined by stakeholder's ability to have a tangible impact on policy reform. Second to power, was the analysis of stakeholder positions on the issue of focus. In most instances, both power and position were assessed together (Table 8). Stakeholder positions were determined by their opinions or perceptions of the policy/ programme under review. Two papers only sought stakeholder perceptions and opinions relative to the issue while a further six explored stakeholder interest, knowledge and influence, as well as opinions. The majority of papers described typical stakeholder characteristics such as interest and influence.

Table 7 Individual stakeholder characteristics assessed in SHA

Stakeholder characteristic	Article
Power/ influence/ leadership	18 papers (1-14, 16, 18, 20, 21)
Position e.g. supportive, neutral, opposed	13 (3-5, 7, 9-14, 18, 20, 21)
Interest	11 (4, 5, 7-12, 14, 16, 21)
Knowledge	5 (1, 5, 7, 9, 11)
Relationships/ interactions/ alliances	7 (1, 8, 9, 11, 12, 14, 16, 17)
Resources	3 (8, 11, 16)
Impact	2 (4, 10)

Box 2 Definitions of power

Power

1. “Assessing and mapping the power/ influence of the stakeholders involved identifying who owns what resources (tangible or intangible), who possesses privileges, and who can directly or indirectly take action for or against the project or be able to mobilise for or against it.” (Namazzi et al. 2013)

2. “The influential variables (of power) are political power and the ability to generate or have resources” (Bedregal and Ferlie, 2001)

3. “Amount of influence on whether defined policies are adopted or implemented” (Drake et al. 2011)

4. “The power of stakeholders is their ability to mobilise and withdraw social and political forces.” (Shao et al. 2015)

5. “Power was interpreted as the ability of stakeholders to introduce strategies for BPHS and help to understand and address the concerns of stakeholders.” (Haidari et al. 2014)

6. “Ability to put HIV/ AIDS on the policy agenda, assert their position as major decision-makers and exercise power with regard to final policy outcomes.” (Ancker and Rechel, 2015)

7. Broken up into ‘criteria power’ - the power to develop criteria for health care reforms and ‘operative power’ - the ability to implement such changes (Bedregal and Ferlie, 2001)

Apart from Bedregal and Ferlie (2001) who assessed only stakeholder's self-perceived power (Box 2), characteristics were assessed in clusters (Table 8) as seen in the scoping review.

Table 8 Clusters of stakeholder characteristics assessed

Stakeholder characteristics	Article
Influence/ power and position	4 (3, 13, 18, 20)
Influence/ power, position and interest	3 (4, 10, 21)
Influence/ power, position, interest and knowledge	2 (5, 7)
Influence/ power, interest, relationships/ interactions/ alliances and resources	2 (8, 16)
Influence/ power/ leadership, position, interest, knowledge and relationships/ interactions/ alliances	2 (9, 11)
Influence/ power, position, interest and relationships/ interactions/ alliances	2 (12, 14)
Power, legitimacy and urgency	1 (2)

By analysisng a combination of stakeholder characteristics, a more holistic assessment of stakeholderss is generated. Analysing stakeholder *power* alone for example, only explains who can affect policy change. Without understanding the *position of powerful* stakeholders, the potential direction of that power remains unknown. Regardless of an entrenched gender/ power imbalance in the Lebanese medical fraternity that placed little value in female medical staff education, a Lebanese nursing law to improve female nurse education was passed due to the supportive position taken by male medical doctors (El-Jardali

et al., 2014). Stakeholders facing positive or negative impact from proposed policy reform, possess an invested *interest* in the proposed action and are therefore likely to use their influence and position to align the outcome with that interest, as seen in Haidari et al. (2014) and Makan et al. (2015).

Further analysis of stakeholder knowledge, relationships and resources generates an even deeper understanding of the type of power possessed. Jain et al. (2014) for example realized through their SHA that some of the more powerful government actors had very little knowledge of HTA and as such, their power was not useful in efforts to advance the use of HTA to strengthen Indian evidence-based health practices.

Stakeholder's resources can determine how their power is manifested. Njau et al. (2009) discussed stakeholder resources in relation to their power and ability to influence an insecticide-treated net subsidy scheme in Tanzania. They described political resources (the influence of the stakeholder on the programme through interaction with government officials), technical resources (inherent technical expertise crucial to implementation of the programme) and financial resources (influence over economic situation) held by stakeholders involved in.

Whilst several papers reported to assess stakeholder relationships, this was superficial and not explored in detail in any of the papers reviewed here. By exploring stakeholder interrelations analysts can uncover alliances and conflicts and thus better understand how to manage stakeholder networks, as opposed to individual stakeholders. Knowledge of stakeholder attributes in isolation provides an

incomplete picture and makes it difficult to navigate across stakeholder groups. Where alliances are known supportive stakeholders can be used to influence opposed or neutral stakeholders, and where conflict is understood analysts can either strategise ways to navigate through that conflict and potentially use it to their advantage.

Six articles (4, 7, 8, 12, 14 and 21) grouped stakeholders within categories based on an assessment of the combination of position and power/ influence, e.g. supportive with low power, neutral with medium power, non-supportive with high power. Three papers grouped stakeholders into categories based on an overall assessment of their attributes (Table 9).

Table 9 Stakeholder categories based on all attributes

Paper	Categories based on stakeholder position and power/ influence
3, 18	Drivers, blockers, supporters, bystanders or abstainers assessed based on stakeholder level of power/ influence and level of agreement with/ position on proposed health policy or strategy
2	Dominant, definitive, dependent, dangerous, discretionary or dormant based on the analysis of stakeholder power, legitimacy and urgency

Organising and analyzing data

Varvasovzky and Brugha (2000) encourage analysts to take stock of the data collected prior to analysis and presentation of findings. They encourage the use of

“interim outputs such as matrix tables or maps” to comprehensively organize data.

Most papers reviewed here included this provisional analysis step in their SHA (Appendix B). The most prevalent interim data displayed was that of timelines of key events of the policy process, seen in six, retrospective SHAs (1, 12, 14, 16, 19 and 20) and stakeholders direct responses to surveys and interviews presented in a further six papers (2, 3, 6, 7, 11, 13).

Once data has been organised, analysis begins. Analysis can be a synthesis of primary and secondary data to which the authors have applied their own interpretation and judgment, or it can be more iterative by including input from stakeholder participants or experts outside the analyst team for a potentially more robust analysis (Varvasovzky and Brugha, 2000). For example, Onoka et al. (2015) triangulated their preliminary data with key interviewees and Williams et al. (2010) developed a master timeline through back-and-forth interaction with stakeholders. Interestingly, Rheinlander et al. (2012, p. 602) looked outside of the health sector to compare their data with similar investigations in the education and agriculture sectors to “identify similarities and differences in perceived roles and responsibilities, challenges and strategies in rural hygiene and sanitation promotion”, which broadened their analysis lens.

In addition to verifying interim qualitative data analysis with other knowledgeable actors, structured, quantitative approaches such as the Delphi questionnaire or lickert scales are described to produce extra data to quantify qualitative data during the analysis phase. Shao et al. (2015) is one of two papers that used a structured

tool to quantify data. They used the Delphi method to identify the most qualified experts to offer insights into stakeholders in China's essential drug system.

Finally, SHAs are time-sensitive. Stakeholder attributes change over time, as does context and both have significant impact on policy or programme processes. Too few SHA analysts actively acknowledge this issue and how it affects their particular SHA. Four papers (3, 5, 7, 9) acknowledge this as an inherent shortfall of any SHA, a further two (18, 21) make recommendations to re-do the analysis periodically, but only two (14, 16) actually present outcomes of a SHA repeated over time.

Presenting findings

Stakeholder information can be illustrated in a number of methodical figures including matrices, charts and position or network maps (Varvasovszky and Brugha, 2000). Synthesising the information collected about stakeholders and organising it diagrammatically offers analysts, and the reader, a clear and complete picture of the stakeholders at play and important information about them. Tables and matrices can depict stakeholder influence and interest, position maps plot stakeholder's stance toward a policy and network maps simplify often-complex stakeholder relationships and links. This birds-eye-view aids in strategy development and is particularly useful when there are many stakeholders to consider.

Six papers (3, 5, 11, 13, 18 and 19) presented their findings in narrative format only, thus making it more difficult for the reader to get a systematic overview of the findings. Two of these six papers (5, 19) included quotes of participating stakeholders

to complement their written findings. The remaining papers used figures, tables or matrices to illustrate findings (Appendix C), nine of which also included participant quotes. A lower proportion of health sector SHAs made use of diagrams or figures to present their findings when compared with the scoping review (71% and 82% respectively) a shortcoming of SHA application within HPA as the presentation of findings in tables or matrices is an effective way of displaying an array of stakeholder information in a reader-friendly manner. In addition, there was little variety in the way that papers presented their findings. Only one paper was seen to deviate from the norm; Shao et al. (2015) produced a Circular Model for Essential Drug Policy, plotting stakeholders according to levels of power, legitimacy and urgency relative to the central position of the most powerful stakeholder. More creative approaches to presenting data may allow deeper understanding and support wider use of the analyses.

Use of findings

Varvasovszky and Brugha (2000) discuss the use of SHA findings relative to the timing of the SHA. If conducted prospectively, during the planning stages of a policy or programme the SHA sheds vital information on how to handle stakeholders in order to ensure successful implementation. In this case the final analysis is often only shared internally so that those responsible for planning can engage strategically with stakeholders. When used retrospectively as an evaluation, the outcome is more likely to be published or widely shared so that others in similar contexts may learn from the experience. However Varvasovszky and Brugha (2000) warn that full publication of the results depends on the extent to which a culture of acceptance of

constructive criticism exists or not within the setting. Where not, a careful balance of what is shared publically and what is kept for internal use should be considered. None of the papers reviewed here commented on this and so it is not known if sections of the SHA were kept aside for internal distribution or not.

For the purpose of this review, the use of findings was broadly categorized into 'direct' and 'indirect'. Direct uses were defined as the concrete application of findings to a specific programme or policy and reported by 11 articles reviewed here. Namazzi et al. (2013) for example, incorporated findings, such as the use of local financial and human resources, into the final programme design. Indirect uses were associated with findings that offered general insights into similar contexts or issues, without having a direct impact on the programme or policy. Williams et al. (2009) for example, conducted a retrospective SHA of Peru's anti-malarial treatment policy changes to inform health policy changes in other countries with similar contexts.

The use of findings was linked to the SHA time dimension, aim and scope. All prospective SHAs presented direct findings to guide implementation processes. In contrast the majority of concurrent and retrospective analyses proposed indirect uses of findings that served to broaden knowledge on the issue as opposed to effect direct action. This points to the more research-based purpose of health sector SHA in general. All but one of the research-aimed papers presented indirect use of findings that contributed to the broader field of evidence-based healthcare, but not to any one specific programme or policy. A higher proportion of narrow-focused SHAs presented direct findings than indirect (54% and 22% respectively), and a higher

proportion of broad-scoped SHA presented indirect findings than direct (77% and 45% respectively).

CONCLUSION

As noted, Varvasovzsky and Brugha (2000) break the SHA up into 3 distinct phases (see Figure 1): Preliminary, Preparation and Conducting the analysis. Perhaps as a result of journal word count limitations, information pertaining to step one and two was not forthcoming, despite the fact that almost half of the articles cited the use of Varvasovzsky and Brugha (2000). In particular, information regarding context and the analyst or analyst team was found lacking and will be discussed below. Hyder et al. (2010) and Gilson et al. (2012) remained most true to Varvasovzsky and Brugha's (2000) SHA guide, with Hyder et al. (2010) presenting a table depicting each step of their 12-step SHA (Figure 2). It is recommended that this approach be used more widely in future as it offers the reader a succinct summary of the methods employed and holds researchers accountable to a more systematic approach.

Figure 2

Table 1 – Twelve-step guidelines for stakeholder analyses in Future Health Systems: Innovations for Equity countries.

Number	Step
1.	Articulate a clear problem statement
2.	Clearly define the new health policy or strategy to be considered
3.	Identify the key stakeholders of the proposal and systematically consider 11 categories of stakeholders (beneficiaries, with a focus on neglected groups; central government agencies, e.g. ministries of finance, planning, civil service; ministry of health and key parts of the ministry; local governments; financiers; civil society organizations; health governing boards; provider organizations; professional organizations and health workers; unions; and suppliers)
4.	Attempt to identify different groups within an organization that may have different perspectives or levels of power
5.	Articulate the current level of power/influence for each stakeholder on a five-point scale (five-point scale: 1 = very low; 2 = low; 3 = moderate; 4 = high; 5 = very high)
6.	Articulate the type of power/influence for each stakeholder (use terms such as: opinion leader; advisor to policy maker; decision maker)
7.	Articulate the current level of agreement with the proposal for each stakeholder using a five-point scale (five-point scale: 1 = strongly disapprove; 2 = disapprove; 3 = neutral/no opinion; 4 = approve; 5 = strongly approve)
8.	Identify the main concerns of each stakeholder about the proposal
9.	Classify the stakeholders into one of the five categories (drivers, blockers, supporters, bystanders or abstainers)
10.	Articulate the main approaches/strategies to deal with the stakeholders
11.	Describe a plan to deal with the stakeholder, bearing in mind its type of power and main concerns
12.	Describe plans to periodically repeat the stakeholder analysis

Source: Hyder et al. (2010)

Future health policy analysts and researchers would do well to look outside the health sector for more creative and participative data collection and presentation

approaches. The lack of participatory approaches within health SHAs could point to analysts self-perceived position as removed from direct policy reform processes. Further insights may also be gained in terms of the role of stakeholder networks and relationships in blocking or supporting reform.

Notwithstanding the widespread citing of Varvasovsky and Brugha (2000) across papers reviewed here, many articles were found wanting in their reflection on the key issues these authors present. HPA analysts and researchers should consider the use of a two-step stakeholder identification strategy in order to include a greater variety of stakeholders; offer reflection on their own role within the process of focus and the potential impact of this on the analysis; as well as explain how context is accounted for in the SHA process, rather than just describing it. Analysts should also actively consider the time sensitivity of their SHA and offer insights to repeat it should the issue of focus span a long time or changes in context occur.

Finally, an important attribute of the SHA approach is its potential to be methodical and structured, useful qualities in the face of complex, political qualitative data. Reporting of SHAs should take care to describe the methods employed in both preparation and implementation stages, guiding other analysts in future SHAs.

REFERENCES

1. Abiiro GA, McIntyre D. 2012. Universal financial protection through National Health Insurance: a stakeholder analysis of the proposed one-time premium payment policy in Ghana. *Health Policy and Planning* **28**: 263-278
2. Abuya T, Maina T, Chuma J. 2015. Historical account of the national health insurance formulation in Kenya: experiences from the past decade. *BMC Health Services Research.* **15**: 56
3. Akinci F, Mollahaliloglu S, Gursoz H, Ogucu F. 2012. Assessment of the Turkish health care system reform: a stakeholder analysis. *Health Policy*. **107**: 21-30
4. Ancker S, Rechel B. 2015. HIV/AIDS policy-making in Kyrgyzstan: a stakeholder analysis. *Health Policy and Planning*. **30**: 8–18
5. Basaza RK, O'Connell TS, Chapčáková I. 2013. Players and processes behind the national health insurance scheme: a case study of Uganda. *BMC Health Services Research*. **13**: 357
6. Bedregal P, Ferlie E. 2001. Evidence based primary care? A multi-tier, multiple stakeholder perspective from Chile. *International journal of health planning and management.* **16**: 47-60.
7. Brugha R, and Varvasovzsky Z. 2000. Stakeholder analysis: A review. *Health Policy and Planning* **15(3)**: 239-246
8. Drake JK, Espinoza H, Suraratdecha C, Lacayo Y, Keith BM, Vail JG. 2011. Stakeholder perceptions of a total market approach to family planning in Nicaragua. *Review Panam Salud Publica*. **29(5)**: 329-336

9. El-Jardali F, Hammoud R, Younan L, Nuwayhid HS, Abdallah N, Alameddine M, Bou-Karroum L, Salman L. 2014. The making of nursing practise law in Lebanon: a policy analysis case study. *Health Research Policy and Systems.* **12**: 52

10. Gilson L, Erasmus E, Borghi J, Macha J, Kamuzora, Mtei G. 2012. Using stakeholder analysis to support moves towards universal coverage: lessons from the SHIELD project. *Health Policy and Planning.* **27**:i64-i76

11. Haidari AM, Zaida S, Gul R. 2014. Prospects for the sustainability of delivering the Basic Package of Health Services in Afghanistan: a stakeholder analysis. *Eastern Mediterranean Health Journal.* **20(5)**: 300-308

12. Hyder A, Syed S, Puvanachandra P, Bloom G, Sundaram S, Mahmood S, Iqbal M, Hongwen Z, Ravichandran N, Oladepo O, Pariyo G, Peters D. 2010. Stakeholder analysis for health research: Case studies from low- and middle-income countries. *Public Health* **124**: 159–166

13. Jain B, Hiligsmann M, Mathew JL, Evers SM. 2014. Analysis of a small group of stakeholders regarding advancing health technology assessment in India. *Value in Health Regional Issues* **3c**: 167-171

14. Javanparast S, Coveney J, Saikia U. 2009. Exploring health stakeholders' perceptions on moving towards comprehensive primary health care to address childhood malnutrition in Iran: A qualitative study. *BMC Health Services Research.* **9**: 36

15. Makan A, Fekadu A, Murhar V, Luitel N, Kathree T, Ssebunya J, Lund C. 2015. Stakeholder analysis of the Programme for improving Mental health carE

(PRIME): baseline findings. *International Journal of Mental Health Systems* **9**: 27

16. Namazzi G, Kiwanuka SN, Waiswa P, Bua J, Okui O, Allen KA, Hyder AA, Ekirapa KE. 2013. Stakeholder analysis for a maternal and newborn health project in Eastern Uganda. *BMC Pregnancy and Childbirth* **13**: 58
17. Njau RJA, De Savigny D, Gilson L, Mwageni E, Mosha FW. 2009. Implementation of an insecticide-treated net subsidy scheme under a public-private partnership for malaria control in Tanzania – challenges in implementation. *Malaria Journal*. **8 (1)**: 201
18. Onoka CA, Hanson K, Hanefeld J. 2015. Towards universal coverage: a policy analysis of the development of the National Health Insurance Scheme in Nigeria. *Health Policy and Planning*. **30**: 1105–1117
19. Rheinländer T, Xuan LTT, Hoat LN, Dalsgaard A, Konradsen F. 2012. Hygiene and sanitation promotion strategies among ethnic minority communities in Northern Vietnam: A stakeholder analysis. *Health Policy and Planning* **27 (7)**: 600-612.
20. Sarr F. 2010. Efficiency of immunization services in the Gambia: Results of a stakeholder analysis. *East Africa Journal of Public Health*. **7(1)**: 70-75
21. Shao, H Li S, Xu L, Yang S, Thomas NI, Mir MU, Guo Z, Ning B, Shi L. 2015. Mapping and analyzing stakeholders in China's Essential Drug System by using a circular model: Who we should deal with next? *Value in Health Regional Issues* **6C** 111-117
22. Varvasovszky Z, and Brugha R. 2000. Stakeholder analysis. *Health Policy and Planning* **15(3)**: 338-345

23. Williams HA, Vincent-Mark A, Herrera Y, Chang OJ. 2009. A retrospective analysis of the change in anti-malarial treatment policy: Peru. *Malaria Journal* **8**: 85

APPENDIX A

Article list by continent and corresponding numbers

South America	Africa	Asia	Asia & Africa
1-A retrospective analysis of the change in anti-malarial treatment policy: Peru. Williams et al. 2009	3-SHA for a maternal and newborn health project in Eastern Uganda. Namazzi et al. 2013	2-Mapping and Analyzing Stakeholders in China's Essential Drug System by Using a Circular Model: Who We Should Deal with Next? Shao et al. 2015	4-SHA of the PRIME: baseline findings. Makan et al. 2015, (Ethiopia, India, Nepal, South Africa & Uganda)
6-Evidence based primary care? A multi-tier, multiple stakeholder	7-Universal financial protection through NHI: a SHA of the	5-Analysis of a small group of stakeholders regarding advancing health technology assessment in India.	18-Stakeholder analysis for health research: Case studies from low- and middle-income

perspective from Chile. Bedregal and Ferlie 2001	proposed one-time premium payment policy in Ghana. Abiiro & McIntyre 2012,	Jain et al. 2014	countries. Hyder et al. 2010 (Bangladesh, Uganda, West Bengal, China, Afghanistan & Nigeria)
13-Stakeholder perceptions of a total market approach to family planning in Nicaragua. Drake et al. 2011	11-Efficiency of immunization services in the Gambia: Results of a SHA. Sarr 2010	8-HIV/AIDS policy-making in Kyrgyzstan: a stakeholder analysis. Ancker and Rechel 2015	
	12-Players and processes behind the national health insurance scheme: a case study of Uganda. Basaza et al. 2013	9-Assessment of the Turkish health care system reform: a SHA. Akinci et al. 2012	

	14-Towards universal coverage: a policy analysis of the development of the National Health Insurance Scheme in Nigeria. Onoka et al. 2015	10-Prospects for the sustainability of delivering the basic package of health services in Afghanistan: a SHA. Haidari et al. 2014	
	16-Implementation of an Insecticide-Treated Net Subsidy Scheme Under a Public-Private Partnership for Malaria Control in Tanzania - Challenges in Implementation.	15-Exploring Health Stakeholders' Perceptions on Moving Towards Comprehensive Primary Health Care to Address Childhood Malnutrition in Iran: A Qualitative Study. Javanparast et al. 2009	

	Njau et al. 2009		
	19-Historical account of the NHI formulation in Kenya – experiences from the past decade. Abuya et al. 2015	17-Hygiene and Sanitation Promotion Strategies among Ethnic Minority Communities in Northern Vietnam: A Stakeholder Analysis. Rheinländer et al. 2012	
	21-Using SHA to support moves towards universal coverage: lessons from the SHIELD project. Gilson et al. 2012	20-The making of nursing practise law in Lebanon: a policy analysis case study. El-Jardali et al. 2014	

APPENDIX B

Interim data organization

These examples were chosen to represent the most systematic examples of interim data presented by papers.

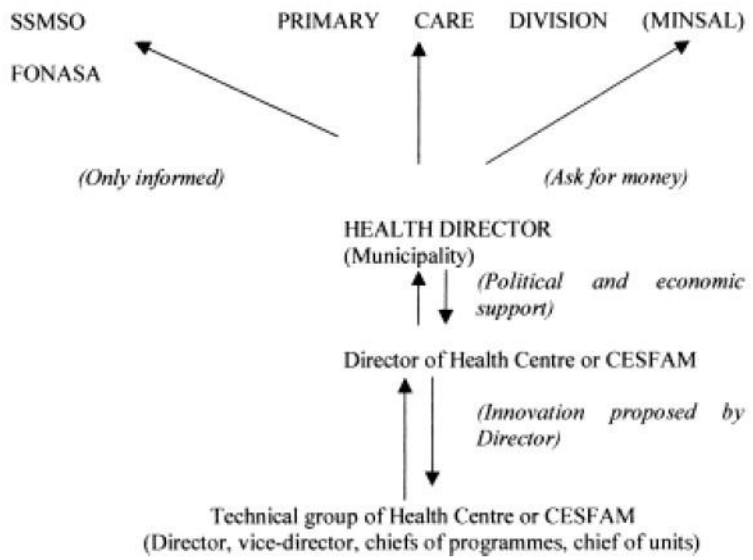
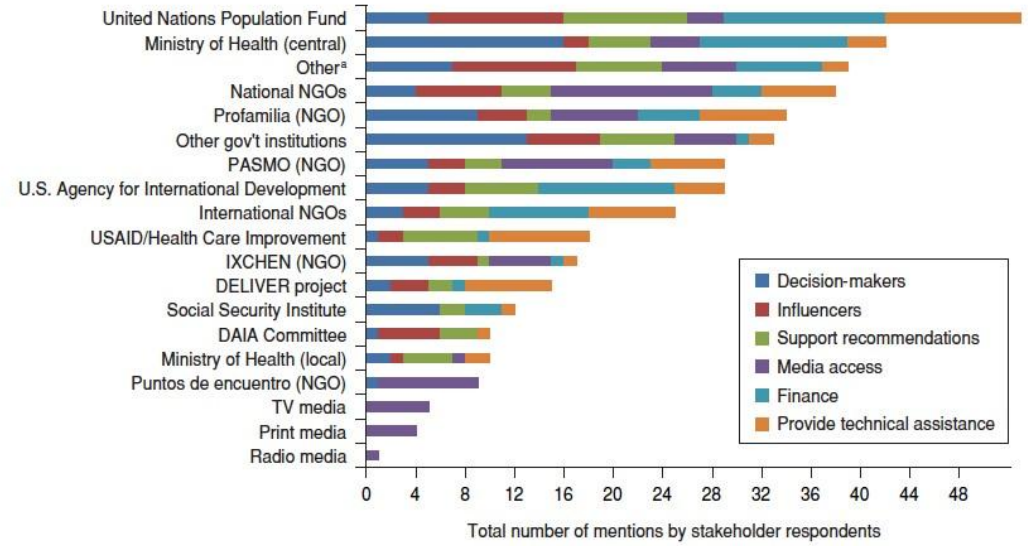


Figure 1. Decision-making process according to local SHs.

Source: Bedregal and Ferlie (2001)

FIGURE 1. Influential stakeholders in contraceptive security in Nicaragua as identified by 24 representatives of private-sector organizations and donors involved in family planning, Nicaragua, March–April 2010



[a] Churches, political parties, individuals, or unspecified.

Source: Drake et al. (2011)

Table 2 Relationship of NHIS*, Community Health Insurance Scheme, and Private Commercial Health Insurance Scheme

	NHIS	CHIS*	PCHIS*
Common arrangements			
Role of proposed Board of Directors of NHIS	For oversight of health insurance schemes and in-house operations of public sector workers and their dependants scheme, the social health insurance scheme	Represented on the Board. The NHIS Board will provide regulations	Represented on the Board. The NHIS Board will provide regulations
Regulation by Insurance Regulatory Authority of Uganda.	Yes	Yes	Yes
Participation in solidarity funds	Provides funds to CHI for indigents	Membership for indigents shall be paid by the NHIS	Contributes part of the premium to the solidarity fund for paying premiums to indigents.
Specific issues			
Ownership	Government	Private	Private
Current coverage	-	5–10% of the population where the schemes exist	1% of the national population
Target membership	Public formal-sector workers and their dependents	Informal-sector workers and their dependents.	Employees and dependents from the private formal sector
Proposed/current source of funding	Mandatory payroll deductions and contributions from both employees and the government	Contributions from personal earning for those above the poverty line.	Mandatory payroll deductions and contributions from employees and private-sector employers
		Payment from the solidarity fund for those below the poverty line	
Benefit package	Stipulated in the bill	Negotiated with the private healthcare providers	Negotiated with employers, trade unions, and individual members and insurance companies.

**NHIS*: National Health Insurance Scheme;*
CHIS: Community Health Insurance Scheme;
PCHIS: Private Commercial Health Insurance Scheme.

Source: Basaza ey al. (2013)

Table 3 – Index system of stakeholder analysis for essential drug operation system*.

Stakeholder	Attribute			Class	Indexes related to stakeholder analysis					
	Power	Legitimacy	Urgency		A	υ	i	P	ViI	SI
Central government	0.4	0.3		Dominant	0.7	5	5	1	1.00	0.70
Provincial governments	0.4	0.3	0.3	Definitive	1.0	4	4	1	0.80	0.80
Local governments		0.3	0.3	Dependent	0.6	5	4	1	0.89	0.53
Medical institutions		0.3	0.3	Dependent	0.6	3	2	0	0.49	0.00
Pharmaceutical manufacturers	0.4		0.3	Dangerous	0.7	4	3	0	0.69	0.00
Delivery enterprises	0.4		0.3	Dangerous	0.7	4	3	0	0.69	0.00
Patients		0.3		Discretionary	0.3	5	1	1	0.45	0.14
Medical insurance institutions		0.3		Discretionary	0.3	4	3	1	0.69	0.21
Mass media	0.4			Dormant	0.7	1	4	1	0.40	0.28
Community		0.3		Discretionary	0.3	4	2	1	0.57	0.17
Drug stores	0.4			Dormant	0.4	4	2	−0.5	0.57	−0.11

*$SI_{proj} = \sum SI_k$. [19].

Source: Shao et al. (2015)

Table1 Stakeholders involved in the NHIS policy reform

Stakeholders	Interests
NHIS	Public institution with regulatory and operational responsibility for the policy
Federal Ministry of Health (FMOH) and the minister of health	Key reform programme of the FMOH
HMO	Intermediary operators of the scheme
HCP	Health service delivery
Federal government employees (i.e. civil servants' unions or Labour unions)	Beneficiaries
Private employers/National Employers Consultative Association (NECA)	Payers for private employees
Banks	Source of mobilizing credit and the need to retain funds meant for their own employees.
Development partners (DP)	Technical and financial support

Source: Onoka et al. (2015)

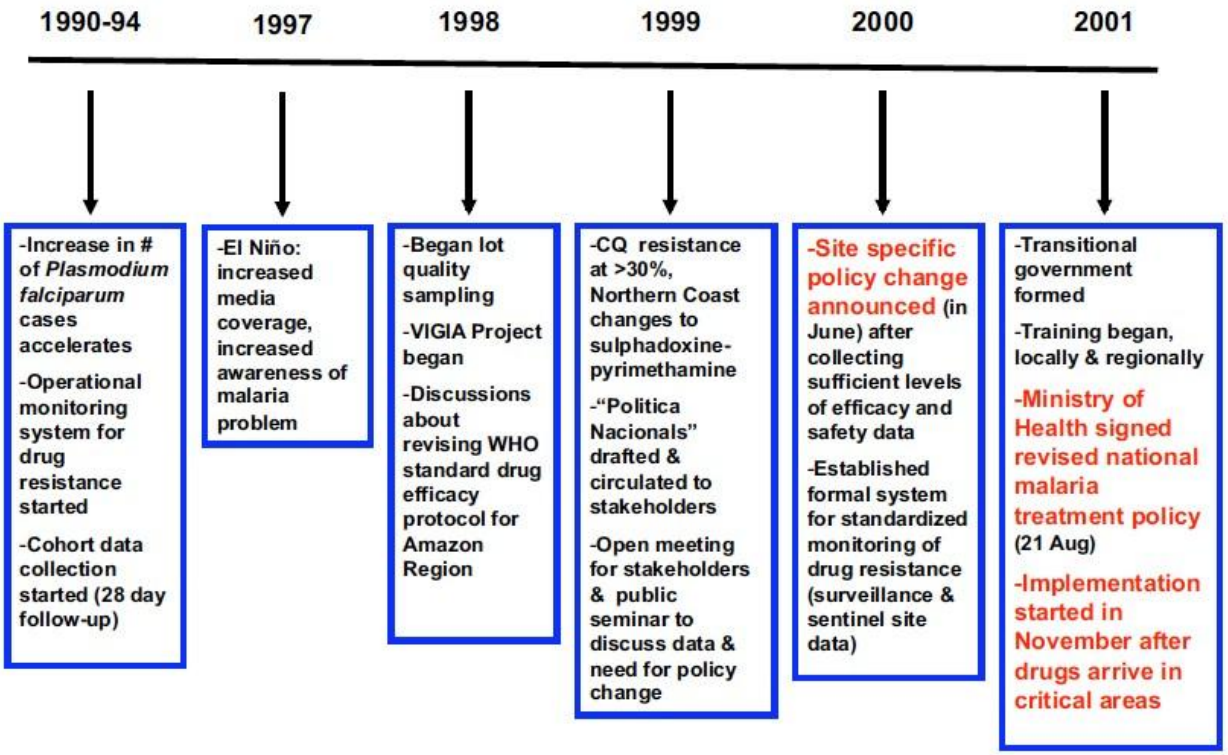


Figure 1
Key events in changing Peru's anti-malarial drug policy.

Source: Williams et al. (2009)

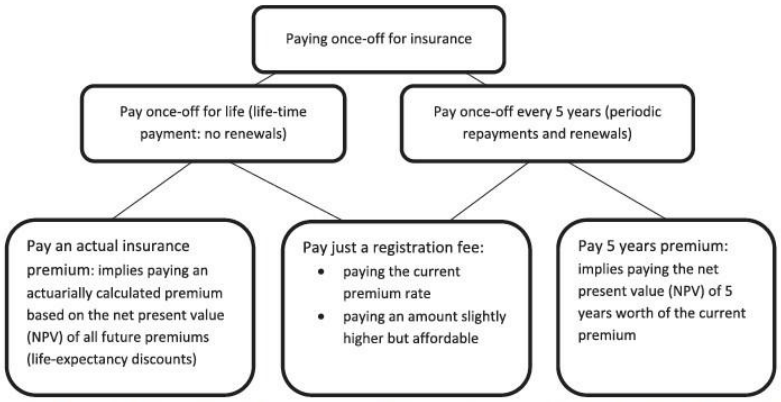


Figure 2 Different interpretations of the meaning of the proposed one-time premium payment (OTPP) based on stakeholders' understanding

Source: Abiiro and McIntyre (2013)

Box 1 Illustrations of forms of life-time one-time premium payment based on stakeholders' perceptions

Paying just a registration fee	Paying an actual insurance premium
A complete removal of informal sector premiums.	Means premium payment will be maintained but paid for once to cover entire life time.
Minimal (nominal) initial payment from the informal sector as a registration fee.	Implies substantial single premium payment.
Health care in all accredited health facilities becomes free as existed in the 1960s.	Those who can pay the accumulated amount will be covered and the rest will have to continue with the cash-and-carry system.
No longer an insurance scheme but a publicly funded system (tax-based system).	The system will continue to operate as a life-time premium based insurance scheme.
Government will have to raise additional funding elsewhere for the running of the National Health Insurance Scheme.	Premiums will be relied upon for the running of the scheme.
The role of the National Health Insurance Authority (NHIA) becomes that of a third party payer.	The NHIA maintains it current role.

Source: Abiiro and McIntyre (2013)

Table 1 Overall perceived impact of the one-time premium payment (OTPP) on stakeholders and their potential position on the policy (if amount is low)

Stakeholder	Overall perceived impact (interest)	Potential position	Key interest/concerns of stakeholders motivating stakeholder's overall perceived impact of policy and their potential positions
Politicians of the ruling party	Strongly positive	Very high support	They are the originators, initiators and drivers of the policy issue and implementing it will help them fulfil their campaign promise and make the NHIS more equitable and pro-poor.
Opposition political parties	Strongly negative	Very high opposition	Feel it is politically motivated, strange in insurance parlance and will only lead to an increase in taxes and the collapse of the NHIS because it will be economically unsustainable since the 1960s tax-funded public health care collapsed.
Technocrats	Not direct Slightly negative	Neutral – opponents	A few clearly maintain the civil service code of conduct of neutrality but a clear majority are opponents because they are concerned about its feasibility, efficiency and sustainability.
Academics	Not direct	Opponents and non-mobilized	A few are opponents because they feel the concept is strange in insurance policy parlance and may be unsustainable, but a clear majority are non-mobilized because they feel, depending on how it is designed, it can bring equity in health care financing.
Labour unions	Not direct/uncertain	Non-mobilized	They were not sure if it can be sustained and operated efficiently without increasing the burden of indirect taxes.
Civil society organizations	Strongly positive	High support	It will relieve the poor of the financial burden of health care and promote equity in access to health care under the NHIS.
Staff of DMHIS (permanent)	Uncertain	Non-mobilized	They all feel it will increase NHIS coverage and may not necessarily affect the running of DMHIS if additional revenue can be mobilized to support it, but they are also not sure of how it will be financed and whether there will be prompt transfer of centrally pooled funds to the scheme, and a few were also concerned about their job security if the NHIS does not survive under an OTPP system.
Premium collectors	Strongly negative	Very high opposition	The premium collectors feel they will lose their jobs when renewal of premiums is taken away.
Health workers (clinical)	Slightly positive	Support	They all reported some support for the OTPP because it will enhance the welfare of their clients, but their support may not be very strong because it may increase their workload and occupational stress.
Health workers (administrative)	Not direct/uncertain	Non-mobilized	They are not sure of its potential impact on claims payment, and hence, internally generated funds.
Private pharmacist	Negative	Opponent	Opponents because it may collapse their business or delay claims payment, but their opposition may not be very strong because they are accredited to the NHIS and they also stand to benefit in terms of claims payment if the system works very well.
(SSNIT contributors)-teachers	Not direct/uncertain	Highly divided	Some may support it because it will relieve them of annual payments for their relatives; a clear majority are non-mobilized because they are not sure of its effect on tax burden; but others are opponents because they feel their contributions will continue to be deducted while those in the informal sector will not be paying.
Informal sector premium contributors	Strongly positive	High support	It will offer them unlimited financial access to health care and relieve them of the physical and psychological stress associated with yearly renewal of payments, but their support may not be extremely high because of fears that it can lead to poor quality of care and they also do not trust its continuation by subsequent governments because of the excessive politicization of it.

Source: Abiiro and McIntyre (2013)

Table 2 Procedural assessment of stakeholders' power and ability to influence the formulation and/or implementation of the one-time premium payment (OTPP)

Source of power/ influence	Legal mandate to initiate the policy	Voting power/ influence over voters	Legislative power for policy approval	Control over state resources	Technical/ professional knowledge/ skills	Involvement in policy formulation/ NHIA Board	Ability to influence public opinion	Ability to organize members	Past influence over state policy (NHIS)	Control over policy implementation at the local level	Determine policy success and continuity[1]	Overall estimated potential level of power
Ruling party politicians	✓✓✓✓		✓✓✓	✓✓✓✓		✓✓✓✓	✓✓✓	✓✓✓	✓✓✓✓		✓✓✓	Very high
Opposition parties			✓✓				✓✓✓	✓✓✓	✓✓		✓✓	Medium/high
Technocrats					✓✓✓✓	✓✓✓			✓✓	✓	✓✓	Medium/high
Academics					✓✓✓✓		✓✓					Low/medium
Labour unions		✓✓				✓✓	✓✓✓	✓✓✓✓	✓✓✓			High
Civil society organizations		✓			✓✓		✓✓✓	✓✓	✓			medium
Staff of DMHIs (permanent)					✓✓✓		✓			✓✓✓✓	✓✓	Medium/high
Premium collectors										✓		Very low
Health workers (clinical)					✓✓✓✓		✓✓✓	✓✓✓	✓✓✓	✓✓✓✓	✓✓✓	High
Health workers (administrative)					✓✓✓✓		✓	✓✓✓	✓	✓✓✓	✓✓	High
Private pharmacists					✓✓✓✓		✓✓	✓✓	✓✓	✓✓✓	✓✓	High
Informal sector workers		✓✓✓✓					✓				✓✓✓✓	Very high[2]
SSNIT contributors		✓✓✓					✓✓	✓			✓	Higher medium

Note: The number of ticks implies level of power and potential ability to influence the policy. ✓✓✓✓ implies very high; ✓✓✓ implies high; ✓✓ implies medium; ✓ implies low and no tick implies no recognized power (potential limitation on the ability of the stakeholder to influence the policy).

[1] Though the other sources of stakeholder power are self explanatory, ability to determine policy success and continuity refers to how a stakeholder's acceptance or rejection of the policy can directly affect policy sustainability and the realization of policy goals.

[2] Though informal sector workers do not have many ticks relative to some other stakeholders, their power mainly serves as a limitation to the power of other powerful stakeholders and is very key in the survival of the policy.

NHIA = National Health Insurance Authority; NHIS = National Health Insurance Scheme; DMHI = District Mutual Health Insurance Scheme; SSNIT = Social Security and National Insurance Trust.

Source: Abiiro and McIntyre (2013)

APPENDIX C

Diagrammatic presentation of findings

These are examples found across all 21 papers.

Forcefield analysis maps

Table 1 Cross-country stakeholder forcefield analysis map

Power	Opposition	Not mobilised	Mostly supportive	Supportive
High		Parliament (IN, UG)	MH Specialists, PHC Workers, CHW (SA)	WHO, MoH (ET, NP, UG)
		PHC Workers (UG)		Parliament (ET)
		Volunteer Workers (IN)		DFID UK (ET, NP, UG)
		Persons with mental illness, Families (ET, IN)		DFID local (ET)
		Service User groups (IN)		Other donors (NP)
		CBOs (ET)		MH Specialists (UG)
		I-Media (SA)		N-Media (NP, UG)
		R-Media (ET, SA)		State/District Media (NP)
		N-Media (IN, SA)		Universities (ET)
		State/District Media (ET, IN, SA)		
Medium–high				Non-Health Ministries (ET)
				MH Specialists (ET)
				Service User groups (NP)
				INGOs, NGOs, CBOs (NP)
				FBOs (ET)
				N-Media (ET)
Medium		Non-Health Ministries (NP, UG)		WHO, MoH (IN, SA)
		CHW (UG)		Non-Health Ministries, Parliament (SA)
		Persons with mental illness (UG)		DFID UK (IN, SA)
		CBOs, FBOs (IN)		DFID local (IN, NP, SA)
		I-Media (IN)		Other donors (ET, SA)
		State/District Media (UG)		CHW (ET)
		Universities (IN, SA)		Service User groups (UG)
				INGOs (UG)
				NGOs (IN, SA)
				CBOs, FBOs (SA)
				Universities (UG)
Low–medium		MH Specialists, PHC Workers, CHW (IN)		MH Specialists (NP)
				PHC Workers (ET)
				Persons with mental illness, Families (NP)
Low		Non-Health Ministries (IN)	FBOs (NP)	PHC in MoH (NP)
		DFID local (UG)		PHC Workers, CHW, Volunteer Workers (NP)
		Other donors (IN, UG)		Service User groups (ET)
		Persons with mental illness, Families (SA)		INGOs (ET)
		Families of persons with mental illness (UG)		I-Media (NP)
		INGOs (IN)		Universities, Research Institutes (NP)
		CBOs, FBOs (UG), Research Institutes (UG)		

Perceived power to influence the scaling up of mental health care (down) by position relating to the scale up of mental health care (across).

ET Ethiopia, *IN* India, *NP* Nepal, *SA* South Africa, *UG* Uganda.

Source Makan et al. (2015)

STAKEHOLDERS' POSITION		Proponents						Opponents
		Very high support	<<<<		Non-mobilized/ conditional/ neutral	>>>>		Very high opposition
POTENTIAL STAKEHOLDERS' POWER	Very high ^ ^	Political party in government	Informal sector workers					
				Health workers (Clinical)	Labour unions Health workers – administrative Staff of DMHIS (permanent)	Technocrats	Accredited private pharmacist	Opposition parties
	Medium			(SSNIT contributors)	(SSNIT contributors) (majority)	(SSNIT contributors)		
			Civil society organizations		Academics (majority)	Academics (few)		
	^ ^ Very Low							Temporary staff of DMHIS (Premium collectors)

Figure 3 Force field analysis: the potential power and positions of stakeholders (if OTPP is not significantly higher than current premium rate)

Source: Abiiro and McIntyre (2013)

Power	High Support		Medium (or not mobilized)		High Opposition
High	*Unions aligned with ANC*	ANC National Executive Committee, Health and Education sub-committee Ministries of Economic Development & Labour Presidency	Cabinet – including Minister of Finance	Treasury (Ministry of Finance) officials	
	Minister of Health Some national Dept of Health officials Most provincial Ministers of Health GPs	*Some national Dept of Health officials* Some employers (Banking, Financial) Some health insurers	Large commercial employers Middle-income population groups *Public health managers* *Public providers* *Civil society groups*	Hospital groups Specialist consultants Some employers (small enterprises)	Democratic Alliance (main opposition party) Some health insurers Some Unions (not aligned with ANC)
Low			*Provincial Dept of Health officials* Lower/higher-income population groups		

Note: Names in italics are stakeholders who may both support and oppose different aspects of reforms.

Figure 1 Forcefield analysis map, South African UC reform debates 2010

Source: Gilson et al. (2012)

Stakeholder power/ influence and position matrices

Table 4 NHIS stakeholders by level of support and influence

	High support	Medium-level support/low opposition	High opposition
High influence	i. Parliament	i. Trade unions	i. National Social Security Fund (NSSF)
	ii. Prime minister	ii. Federation of Uganda Employers	
	iii. Cabinet	iii. Uganda Manufacturers Association	
	iv. Ministries (MOH, MOFPED, MOPS, MOGLSD)	iv. Private sector foundation	
	v. Providing for Health (P4H)		
Medium-level influence	i. Insurance Regulatory Authority of Uganda	i. Local governments (district and urban authorities)	-
	ii. IRAU		
	iii. National Planning Authority		
Low influence	i. Private for-profit providers	i. NGOs & religious medical bureaus	-
	ii. Community Health Insurance Schemes	ii. Donors (bilaterals)	
		iii. Health professional associations	
		iv. Private insurance companies	

Adapted from Roberts et al. 2008 [51].

Source: Basaza et al. (2013)

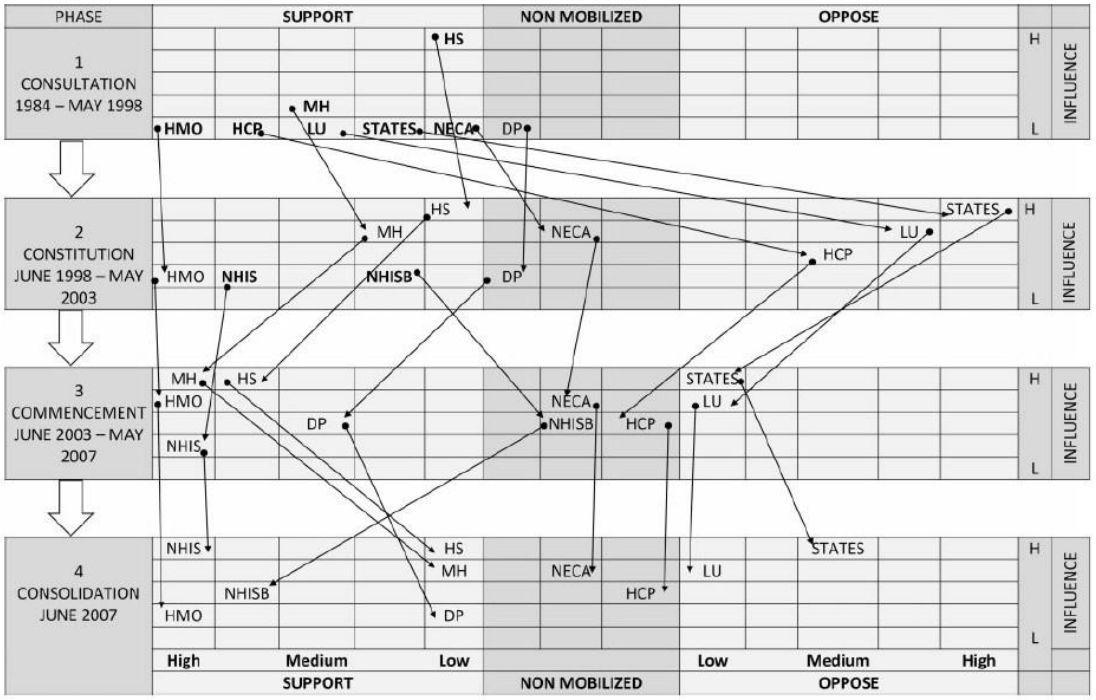


Figure 1 Changing positions and influence of stakeholders regarding the national health insurance policy
MH, minister of health; HS, head of state/president; NHIS, National Health Insurance Scheme; HCP, healthcare provider; DP, Development Partners; LU, Labour Union; NHISB, Governing board of the NHIS; NECA, private employers; STATES, state governments.

Source: Onoka et al. (2015)

Table 2 Estimated position and influence of key stakeholders with regard to the development of HIV/AIDS policies in Kyrgyzstan

Influence					Position
Low	Low-medium	Medium	Medium-high	High	
State: Family Group Practice Association, Kyrgyz State Medical Academy, Academy of the Ministry of Internal Affairs, Ministry of Defence	State: National AIDS Centre, Republican Narcology Centre	State: Country Coordinating Committee, Ministry of Social Development, Republican Centre for Infectious Disease Control, State Penitentiary Service	State: Ministry of Education and Science, State Agency on Drugs Control	State: Ministry of Health	SUPPORTIVE
NGOs: Youth R.I.S.E.		NGOs: Association 'Country Network of PLWHA', Association 'Solidarity of PLWHA', Public Foundation 'Legal Clinic "Adilet"', Central Asian Training Information Centre on Harm Reduction, NGO 'Socium', NGO 'Tais Plus', NGO 'Terra Sana'	NGOs: Anti-AIDS Association, Association of Harm Reduction Programmes 'Partnership Network', 'Harm Reduction Network', and 'Partnership Association'		
International: UNFPA	International: GIZ	International: CDC/PEPFAR, DFID, PSI, UNAIDS, UNDP, UNICEF, UNODC, USAID, WHO, WB	International: AFEW, Soros	International: Global Fund	
	State: Ministry of Justice, Ministry of Finance Media: *AkiPress, Argumenty i Fakty, Kabar, MSN, Slovo Kyrgyzstana, Vechernii Bishkek, 24.kg*		State: Ministry of Internal Affairs	State: Jogorku Kenesh, Office of the Government	MIXED

Source: Ancker and Rechel (2015)

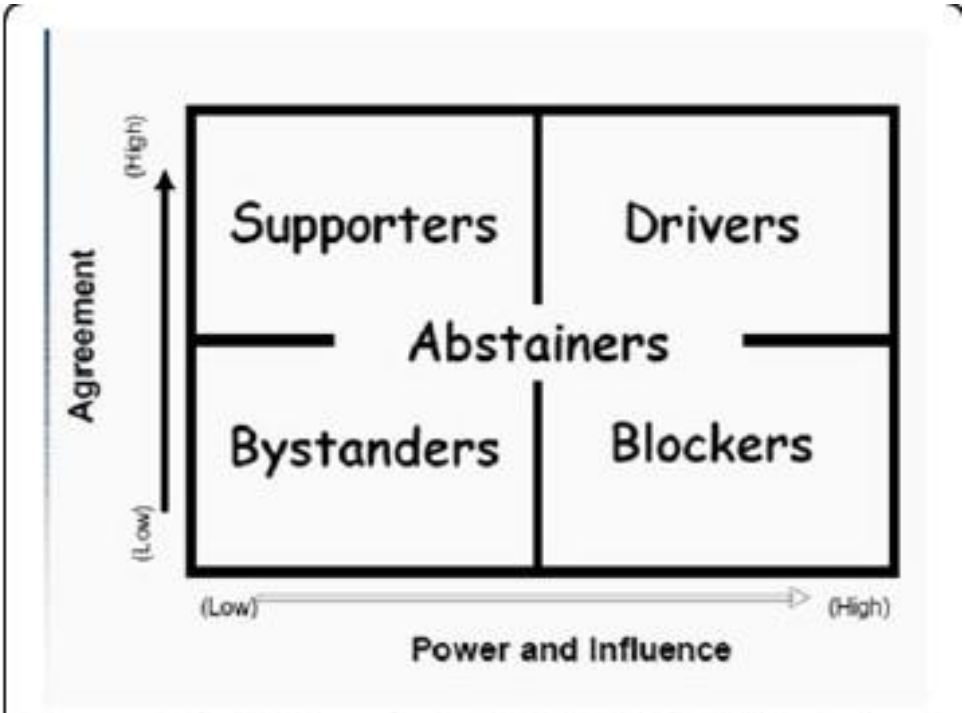
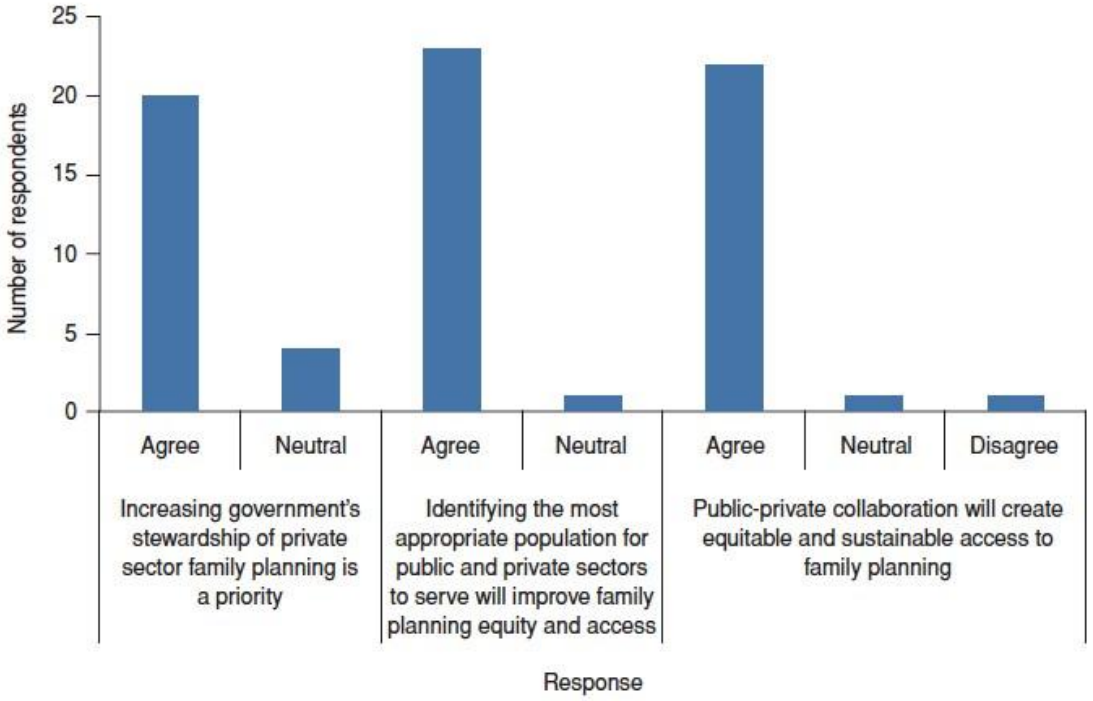


Figure 1 Stakeholder analysis grid. *Ref: FHS2/Stakeholder Analysis/ Hyder et al.* [27].

Source: Namazzi et al. (2013)

Stakeholder position illustrations

FIGURE 2. Number of private-sector and donor survey respondents (n = 24) who agreed with the key principles of a total market approach (TMA) to family planning, including the view that public–private partnerships are beneficial, Nicaragua, March–April 2010



Source Drake et al. (2011)

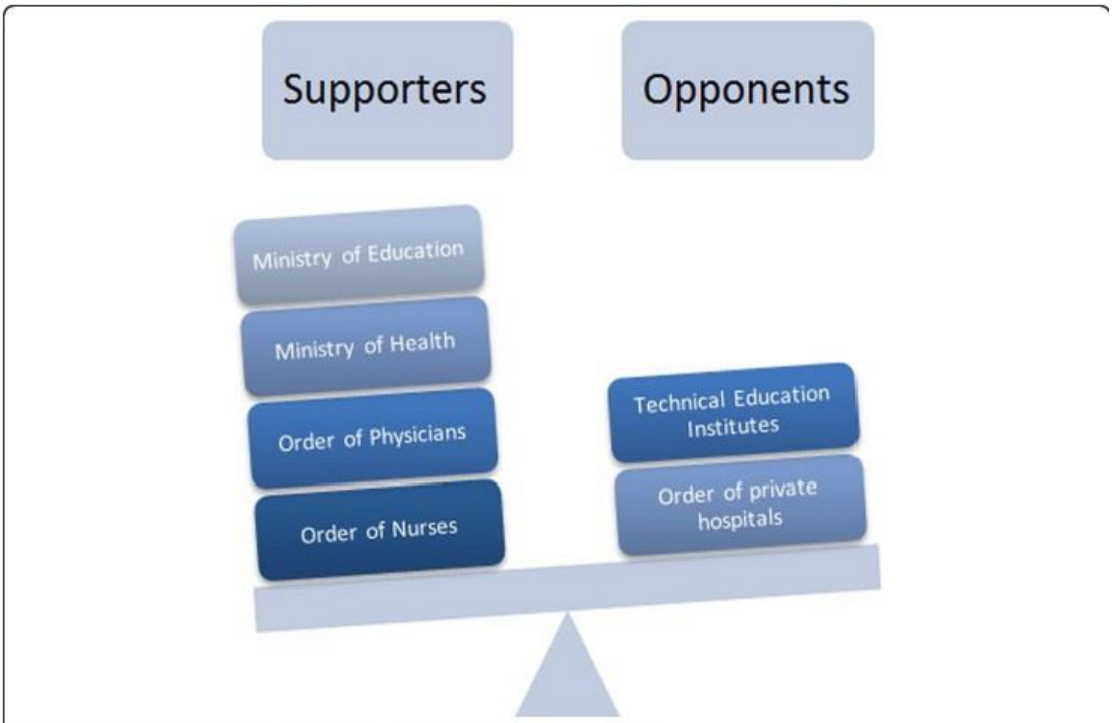


Figure 3 Stakeholders and their positions regarding the draft nursing practice law.

Source: El-Jardali et al. (2014)

Position
Support
Government Organizations, including MoH, SSI, SPO
NGOs such as SEIS, HAA, TDA
Marmara University Health Education Faculty, Hacettepe University Health Administration Department
JDP
UCCE
Moderately Support
Turkish Court of Accounts
Turkish Association of Family Physicians
Neutral
Turkish Pharmacists' Association
Moderately Oppose
Ankara University Department of Public Health
Oppose
Turkish Medical Association
SES
CTTU
Turkish Nurses Association
RPP

Stakeholders' position on the HTP Phase 1 reform components

Source Akinci et al. (2012)

Actor Category	High support	Medium support	Non mobilzed	Low opposition	High opposition
Government sector	Chief Medical Officer Programme Manager - National Malaria Control Programme				
Private sector for- profit	TNM, Insecticide companies				
Private sector not- for- profit	PSI				
Multilateral	WHO		UNICEF		
Bilateral	DFID RNE Technical Advisor - TEHIP*		Irish Embassy		
Research	IHRDC	TPRI MUCHS			
GFATM	TRP				
Faith Based Organizations		CSSC			

*The Tanzania Essential Health Project was a bilateral organization measuring malaria as a contributor to disease, but was directly answerable to the Ministry of Health

Actors' position in the process of adopting a public-private partnership approach to an ITN subsidy scheme, 1998-2001

Source: Njau et al.

Actor category	High support	Medium support	Non mobilzed	Low opposition	High opposition
Government sector	Chief Medical Officer Programme Manager - National Malaria Control Programme				
ITN Cell	Team Leader				
TNVS Contractors	MEDA WVT CARE				
Private sector for-profit	TNM				
Private sector for-non-profit	PSI TANAAM				
GFATM		PWC		TRP[1]	
Multilateral	WHO	UNICEF			
Bilateral	DFID SDC DCI RNE				
Research		MUCHS			
Faith Based Organizations		CSSC			

[1]The Technical review panel shifts to non-mobilzed within 9 months of the release of funds to the Ministry of Health and no implementation had taken place due to the delay by the Central Tender Board in awarding contracts to implementors

Figure 3
Key steps towards implementation – Actors position in the steps towards implementation of a public – private – partnership approach to an ITN subsidy scheme – 2001 – 2004.

Source: Njau et al. (2009)

Actor category	High support	Medium support	Non mobilzed	Low opposition	High opposition
Government sector	Chief Medical Officer	DMO - Rufiji			
	Programme Manager - National Malaria Control Programme	RCH Coordinators			
ITN Cell	Team leader Programme administrator Communication Officer				
TNVS Contractors		MEDA			
		WVT			
		CARE			
Private sector for-profit				TNM*	
Private sector for-non-profit	PSI TANAAM				
GFATM		TRP			
Multilateral	UNICEF	WHO			
Bilateral		DFID			
		SDC			
		DCI			
		RNE			
Research	IHRDC LSHTM				
Faith Based Organizations		Red Cross			

*The Tanzania net manufacturers shifted to non-mobilzed after the President of the United Republic of Tanzania received a donation from the World Economic Forum in Davos (2005), for free mosquito net distribution in two regions in Tanzania

Figure 4
Implementation phase – Actors position in the implementation of a public – private – partnership approach to an ITN subsidy scheme – 2004 – 2005.

Source: Njau et al. (2009)

Stakeholder power illustrations

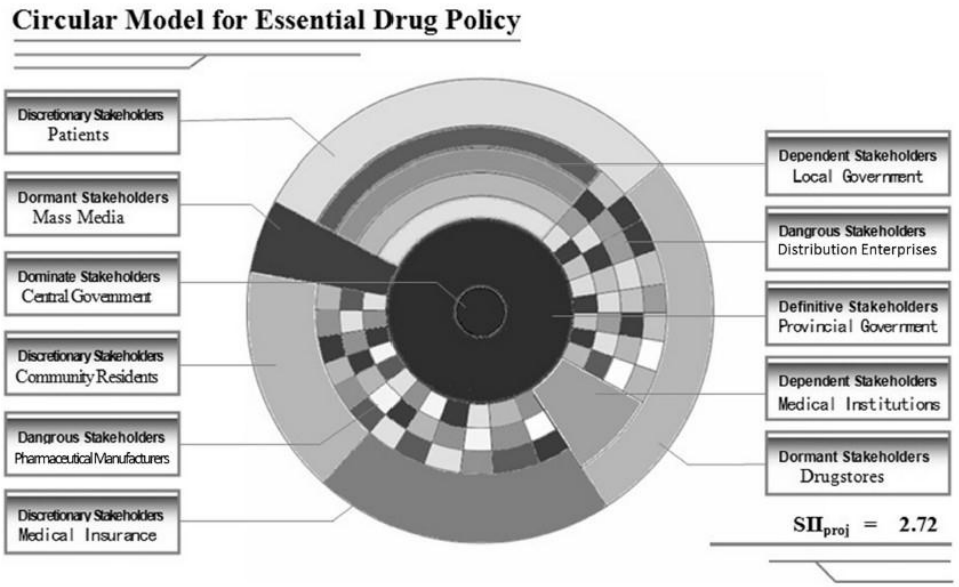


Fig. 3 – Circular model for essential drug policy.

Source: Shao et al. (2015)

Table 2. Rank of power according to stakeholders

Rank	Stakeholder
1	Ministry of Health and group of assessors
2	FONASA (Public insurance)
3	Department of Programmes, Ministry of Health
4	Division of Primary Care, Ministry of Health
5	Direction of Health at Municipalities
6	Director of Health Centre
7	Health Service (SSMSO)

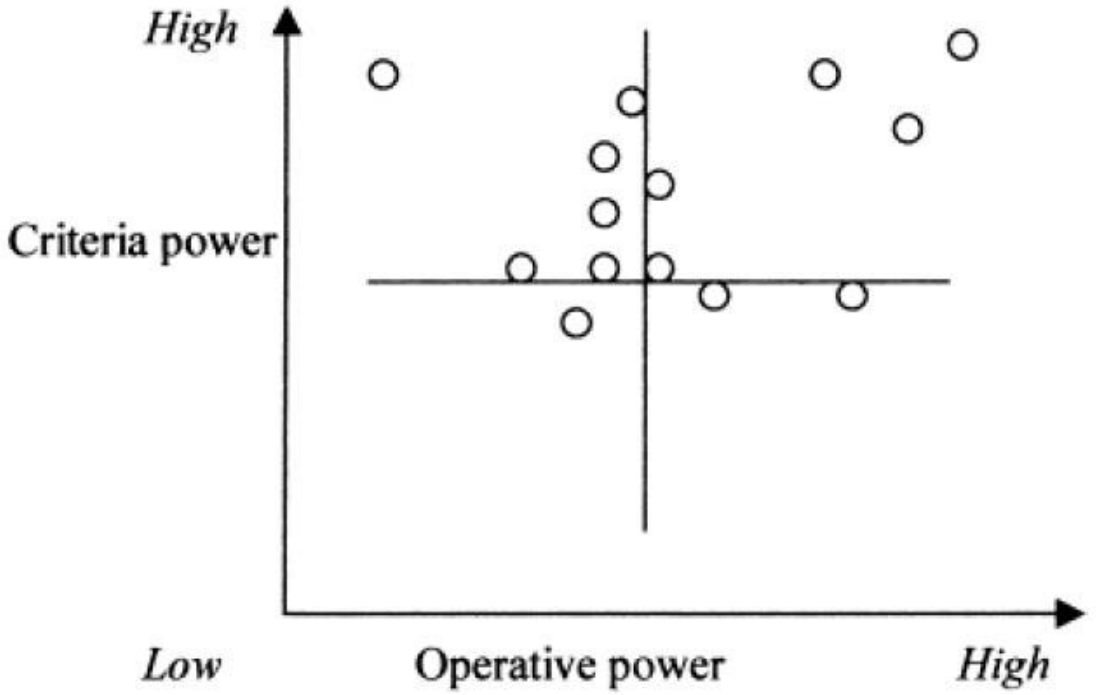


Figure 2. Stakeholders' perception of criteria and operative power.
Source: Bedregal and Ferlie (2001)

Actors	Overall influence	Source of Influence*					
		Political resource	Economic resource		Knowledge of PPPs	Values/Behaviours[1]	Degree of Participation
			Technical	Financial			
Government:							
CMO/DPS	high	√√	√		√	√√	√√
Programme Manager - NMCP	high	√√	√√		√	√√	√√
Private sector not-for-profit:							
Promotional Service International	high	√	√√	√√	√	√√	√√
Private sector for - profit:							
Tanzania Net Manufacturers	Middle/high	√	√√	√√	√	√√	√√
Multilaterals:							
WHO	High		√√		√√	√√	√√
UNICEF	Middle		√		√	√	√
Bilaterals:							
Technical Advisor - TEHIP	Middle/high	√	√√		√√	√√	√√
DFID	Middle/high		√		√	√√	√√
PATH Canada	Middle/high		√		√√	√	√
Research:							
IHRDC	Middle		√√		√√	√	√
TPRI	Low						
Faith Based Organizations:							
CSSC	Middle		√		√√	√	√

The source of actors' influence during the process of implementing a public-private partnership approach to an ITN subsidy scheme, 1998-2001

Source: Njau et al. (2009)

Actors	Overall influence	Source of Influence*					
		Political resource	Economic resource		Knowledge of PPPs	Values/Behaviours[1]	Degree of Participation
			Technical	Financial			
Government:							
CMO/DPS	high	√√	√		√	√√	√√
Programme Manager - NMCP	high	√	√√		√	√√	√√
ITN Cell:							
Team Leader	high		√√		√√	√√	√√
TNVS contractors:							
MEDA	Middle/high	√	√√	√√	√	√√	√√
CARE	Middle/high	√	√√	√√	√	√√	√√
WVT							
Private sector for - profit:							
Tanzania Net Manufacturers	Middle/high	√	√√	√√	√√	√√	√√
Private sector not - for - profit:							
Promotional Service International	high	√	√√	√√	√√	√√	√√
TANAAM	Middle/high	√	√		√√	√√	√√
Multilaterals:							
GFATM - Technical Review panel	Middle/high		√√	√√	√	√	√√
GFATM - PWC	Middle/high		√		√	√	√
WHO	Middle/high		√√		√√	√√	√√
UNICEF	Middle		√	√	√	√	√
Bilaterals:							
Technical Advisor - TEHIP	Middle/high	√	√√		√√	√√	√√
DFID, SDC, DCI, RNE	high		√	√√	√√	√√	√√
Faith Based Organization:							
CSSC	Middle		√		√√	√	√

The source of actors' influence during the process of implementing a public-private partnership approach to an ITN subsidy scheme, 2001-2004

Source: Njau et al. (2009)

Actors	Overall influence	Source of Influence*					
		Political resource	Economic resource		Knowledge of PPPs	Values/Behaviours[1]	Degree of Participation
			Technical	Financial			
Private sector for - profit:							
Tanzania Net Manufacturers	middle		√√	√√	√√	√√	√√
Private sector not-for-profit:							
TANAAM	Middle/high	√	√√		√	√√	√√
Promotional Service International	high	√	√√	√√	√	√√	√√
Multilateral:							
GFATM - Technical Review Panel	Middle/high		√√	√√	√√	√√	√√
GFATM - PWC	middle		√		√	√√	√
WHO	Middle/high		√√		√√	√√	√√
UNICEF	high	√	√	√√	√	√	√√
Bilateral:							
DFID, SDC, DCI, RNE	Middle/high		√	√√	√	√	√√
Research:							
IHRDC, LSHTM	Low		√		√	√	√
Faith Based Organization:							
Red Cross	middle			√	√	√	√

The source of actors' influence during the process of implementing a public-private partnership approach to an ITN subsidy scheme, 2004-2005

Source: Njau et al. (2009)

Range of stakeholder attributes illustrated

Table 2 Stakeholders characteristics, power/influence regarding the implementation of an integrated maternal/newborn care project

Stakeholder	Characteristics					
	Interest in the issue	Current level of power/influence	Type of power/ leadership	Current level of agreement with proposal	Classification of the stakeholder (on a three point scale)	Strategy to deal with the stakeholder
Mothers	Pregnant and newly delivered women	Little influence	Beneficiaries	Strong Agreement	High level supporter	Empower
Men	Men make most of the decisions in the family including when and where to seek for health care	Little influence	Beneficiaries	Strong Agreement	High level Supporter	Involve further and empower
Transporters	These are motorcycle riders who ferry passengers (mothers) at a fee in form of a voucher	Moderate influence	Transporters/ Beneficiaries	Strong Agreement	High level Supporter	Involve further
Local Council member (LC)	The local council is the administrative structure of the community	Little influence	Opinion leader	Strong Agreement	High level supporter	Involve further
Health providers	Health workers within the Health facilities both private and public	Moderate influence	Beneficiaries	Strong Agreement	High level supporter	Involve further
District Health Team (DHT)	The DHT members are in charge of/supervise health matters in the district	High influence but limited resources for implementation	Decision makers	Strong Agreement	High level supporter	Involve further
Member of parliament (MPs)	Woman MP	High influence for policy formulation	Decision maker	Strong Agreement	High level supporter	Involve further
Senior Medical Officer MOH		High influence for policy formulation but limited funds for scale up	Decision maker and influences policy formulation	Moderate Agreement	Moderate level supporter	Continuous engagement
Development partner	Donor	Moderate Influence of implementation	Funder	Strong Agreement	High level supporter	Continuous engagement
Uganda Catholic Medical bureau	Regulates policies regarding management of Catholic faith based facilities	High influence of catholic based facilities, moderate influence of intervention	Catholic faith is widely spread in the country with many faith based facilities	Moderate agreement	Moderate level supporter	Consult further

Source: Namazzi et al. (2013)

Table 3 **Summary of stakeholder analysis for the Afghanistan Basic Package of Health Services**

Stakeholder	Nature of involvement	Interest	Power & authority	Position	Impact on stakeholder
Ministry of Public Health	Programme approval & implementation	High	Low	Very supportive	Medium
Ministry of Finance	Fund allocation	Indifferent	High	Neutral (non-mobilized)	Low
Politicians	Policy support	Low	Medium	Supportive	High
Development partners	Technical and financial assistance	Low	Medium to high	Neutral (non-mobilized)	Low
Non-profit organizations	Contracted providers for implementation	Medium	Low	Supportive	High
Community	Service recipients	High	Low	Supportive	High

Source Haidari et al. (2014)

Categories of Stakeholders	Stakeholders' Affiliations	Roles	Level of Analysis (H=High, M=Medium, L=Low)		
			Interest	Impact	Influence
CDC	Foreign Government	Technical assistance: capacity building	H	L	M
DISAs	Sub-national Government	Health Authority, research, implementers	H	H	M
Health care workers	Government	Implementers	H	H	L
Health care workers	Private Sector	Implementers	H	H	L
INS	National Government	Research	H	M	H

Local communities	General Public	Beneficiaries	H	H	L
Media	Private Sector	Communication	H	L	M
Ministry of Health	National Government	Policy, Implementation	H	H	H
NAMRID	Foreign Government/Military	Funding, capacity building	H	L	M
NMCPs – Amazon Countries	Regional Governments	Regional policy	M	H	L
NMCP	National Government	Formulate policy, lead implementation	H	H	H
PAHO	Regional Bilateral Partner	Regional policy	H	M	M
Pharmaceutical companies	Private Sector	Beneficiary	H	H	L

Universities	Academia	Research	M	L	M
USAID	Development Assistance Agency	Funding, technical assistance	H	L	H
VIGIA Project	USG/GOP Partnership	Capacity building, promoting collaboration	H	H	H
WHO	Global Bilateral Partner	Global policy	M	L	M

Source: Williams et al. (2009)