Project KB-53

Support to the WUR "Ethiopia Group": an innovative knowledge management process

Overall project report

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The goal of the research is twofold. Firstly, it is focused on achieving the following objectives related to increasing the impact of WUR research in Ethiopia:

- a detailed inventory of who is doing what on Ethiopia. In the medium term, establishing a repository of data-information generated by WUR which can be shared among WUR users, as well as additional information (research, dataset, networks, stakeholders, potential partners),

- a number of "Ethiopia Days" to facilitate the process,

- strengthening the WUR network in Ethiopia with the participation of alumni, current PhD and MSc students groups, partner institutes, etc.,

- identifying complementarities, possible research gaps, and look forward for possible collaborative research initiatives reaching out to the Embassy in Addis, donors, and private sector.

All together reinforcing WUR's role as agri-food research organisation and knowledge hub for policy makers and private sector as well as a capacity development institution. Also important is promoting focused acquisition actions as a OneWageningen team effort. Secondly, the goal of this research is to learn and develop good practices and recommendations concerning innovative ways to increase the impact of WUR research in Low and Middle income Countries when it comes to Food Systems. This "Ethiopia Group", an innovative knowledge management process, especially helps to test the envisaged approach in practice. From that, general recommendations will be developed an reported to the KB programme on Food Security and Valuing Water.

As per the objective of this project, the activities below were performed.

1. **Inventory of WUR research on Ethiopia**

   Prior to the activities of this project, the inventories made regarding WUR research projects in Ethiopia were made by concerned individuals and was unsystematic, mainly based on the records available on the international projects at WUR platform and from registries provided by PROMISE. The total number of projects available on the international projects at WUR database was only 67 and were only associated with minimum project

information. With the inventory of this project, the number has extended to 188 and are now associated with the possible complete information on related project outputs and related details. This project made the inventory with a systematic approach. First, the WUR research project related databases (i.e International Projects@WUR, Research@WUR, research result, and dataset@wur) were explored using 'Ethiopia' as a key word. Second, the 'WUR-Ethiopia project' survey, which aimed to acquire details on project information, datasets, and networks related to Ethiopia; was used to request information from the survey respondents to update the project lists provided online with their best-known information. In addition, personal networks were used to find projects that are not (completely) registered on the available databases. The PROMISE database was not explored due to restriction of access.

2. Survey outcomes

The survey was circulated to WUR researchers that are known to have engagement on researches in Ethiopia, WUR chair group heads and team leaders and were asked to forward it to appropriate personnel's and was also forwarded to Alumni's through the WUR Alumni office. There were 52 respondents in total (until 28th December). Some of the key outcomes are listed below.

2.1. WUR research in Ethiopia and related disciplinary categories

Based on the responses, majority of the WUR research in Ethiopia is mainly related to Environmental sciences, followed by plant sciences, and by the combination of environmental and plant sciences disciplinary categories of WUR (figure 1). On the contrary, disciplinary categories such as sustainable governance; space, place and society; as well as research that integrates plant sciences and economics had the lowest rank.
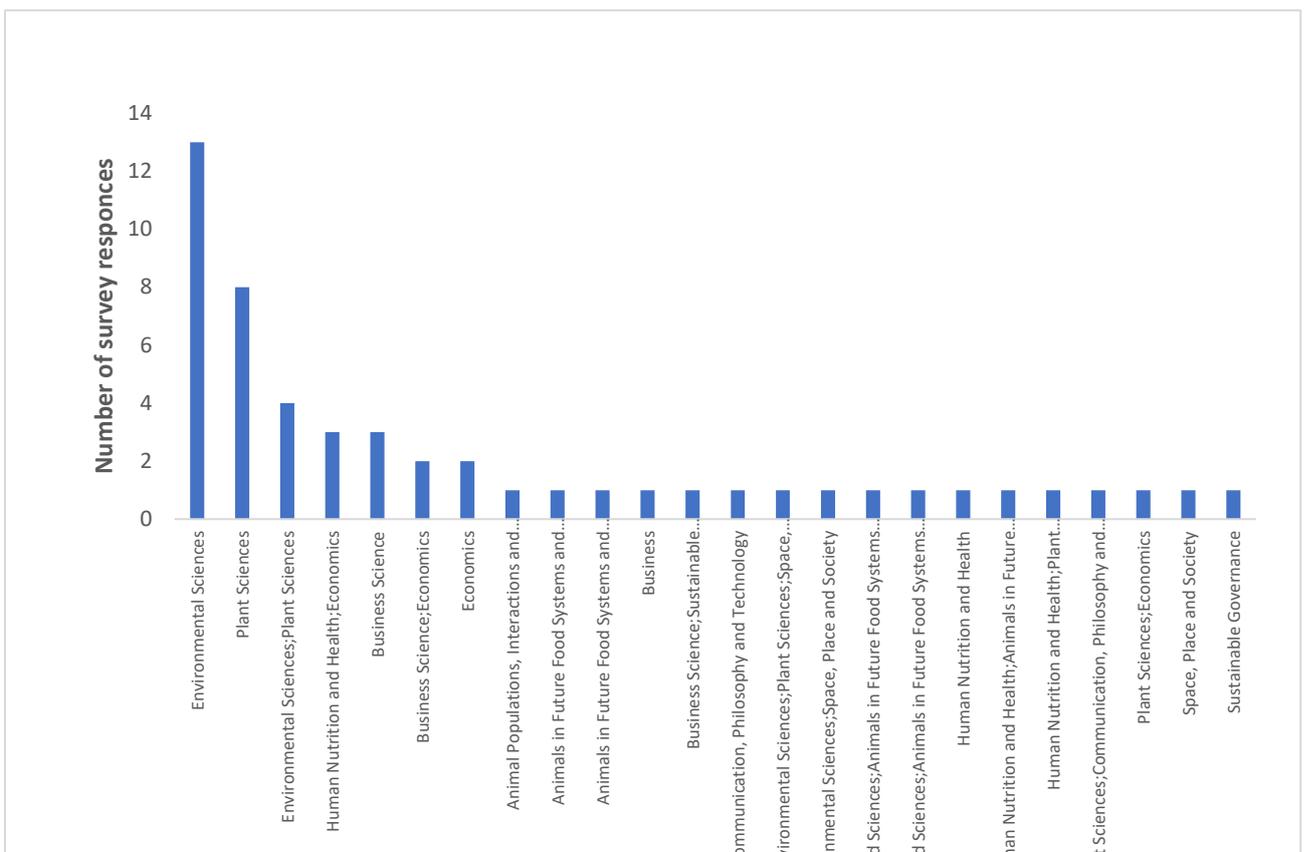
2.2. WUR research in Ethiopia and its relation to Food Systems Approach

After consultation with Food Systems Approach (FSA) experts within WUR, the survey was designed to capture relevant elements of FSA in both research outputs and projects. This is used to indicate on WUR's research contribution towards food security activities in Ethiopia. In doing so, it is also possible to identify new challenges and possibilities for interdisciplinary collaboration.

As shown on figure 2, majority of WUR related research/projects have their focus on issues related to environmental drivers of FSA, followed by studies that integrates the socio-economic drivers; food system activities; as well as environmental drivers of FSA.
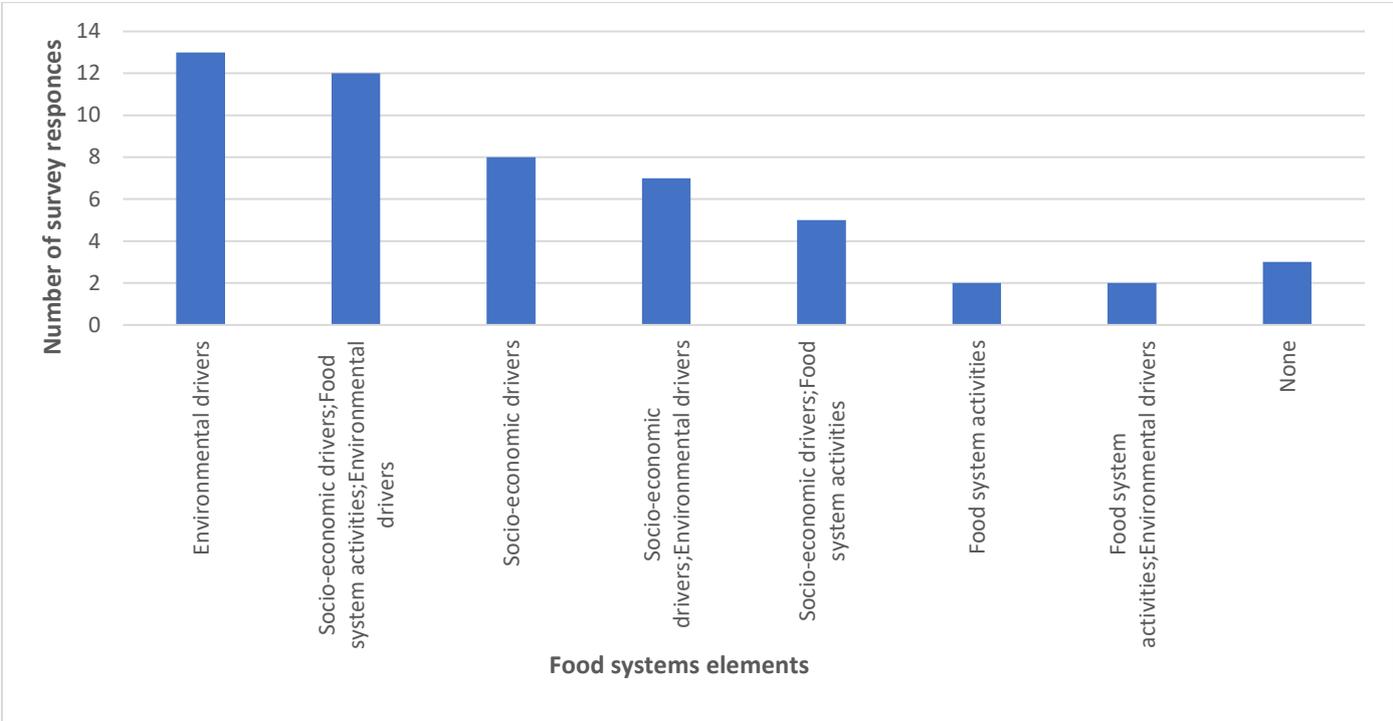

Figure 2: WUR research activity in Ethiopia and the relationship with Food Systems approach

2.3. WUR research in Ethiopia and availability of related research data

The survey results showed that most of the research related dataset are found on the hands of the researchers, on an online archive, and on the chair group repository respectively (Figure 3). Majority of the responders showed their willingness to make their data available for future collaborative research while the second majority indicated that they would need further assistance from WDCC.
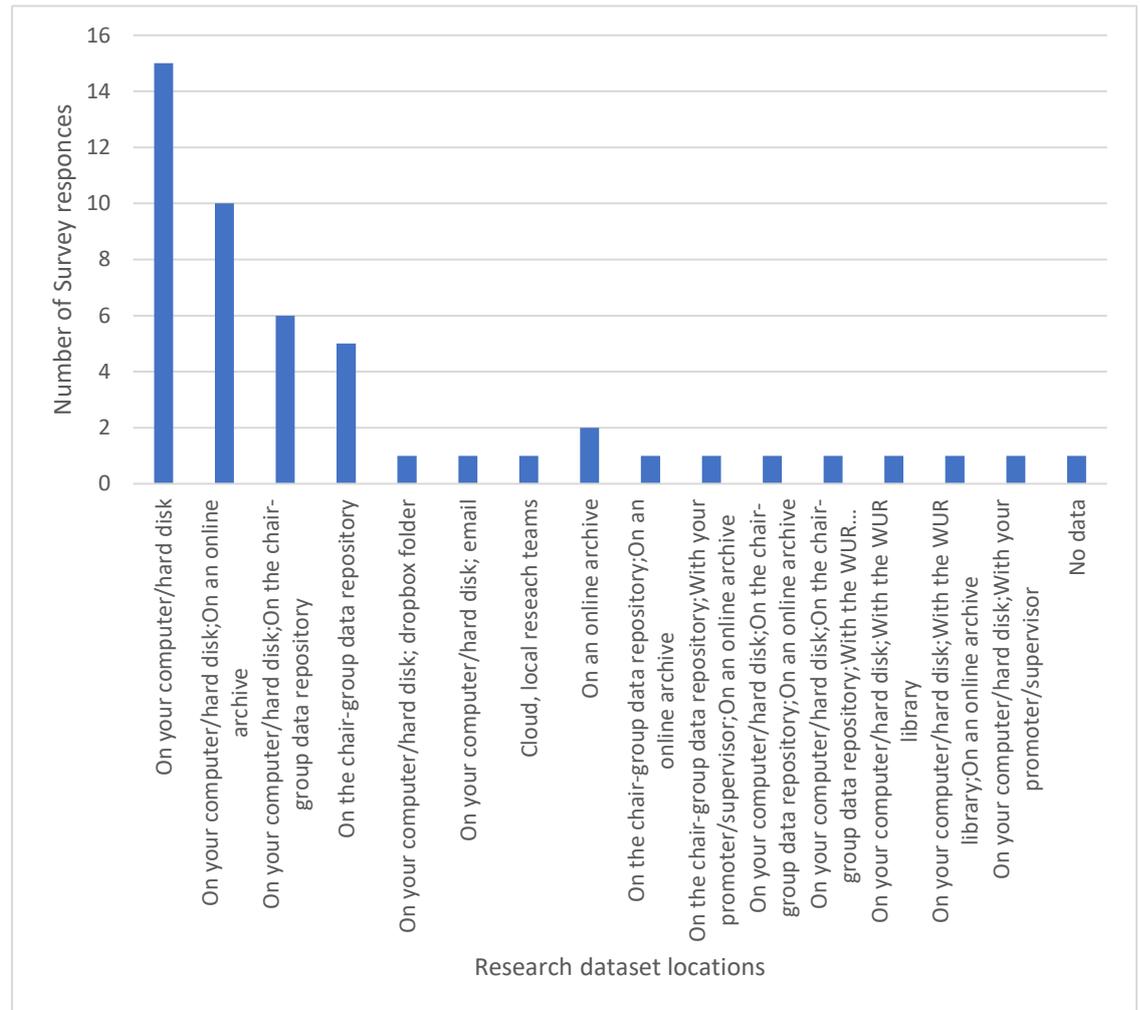

Figure 3: WUR research activity in Ethiopia and related research data

The survey was also used to acquire additional information on research/project outputs. Such additional information is expected to populate the needed detail for metadata formation. The metadata would provide the minimum information that could be used in the meantime of looking for the complete research data. The project details requested are location, key words, disciplinary theme, food systems related theme, relation to SDGs, data type, and data acquisition methods used.

3. Design of a data/info repository

3.1 Design of the system

The survey outcomes, the exploration of the WUR databases, as well as the discussion with Wageningen data competence center (WDCC) has shown that research data and reports on Ethiopia are not consistently recorded and documented. This is especially true with the archives of dataset related to research projects. Out of the almost 200 research projects found there were only 7 research datasets found in the archive.

The existing meta-/data repository structures of WUR were advised to be used for incorporating the additional information we have acquired. The design of the repository is expected to be in consideration of different actors (e.g. donors, research partners, hands on researchers) need for details about research/projects and their related outputs. The internationalprojects@WUR platform is expected to be the main entry point to acquire general information on projects. Details in terms of the research relation to food systems and SDGs could be put here along with a link that could take visitors to research@wur which hosts research outputs related to projects. Details on location, and themes could be hosted on research@wur along with a link that leads to the detailed metadata and/or if available to the actual research dataset. The dataset@WUR platform could be used to provide metadata related to data type, format, and if available provide the research dataset itself.

3.2. Data population and testing

The survey response, the updated project inventories, and the existing WUR databases were used to make a practical test on how additional information can be integrated to the WUR research related databases. A discussion with WDCC and WUR library was made to design a practical integration of these information to the existing system. Activating existing fields and/or adding new fields to the databases were proposed as possible option to bring in the additional information on research outputs. Accordingly, a spreadsheet of research activities and related information (based on survey responses and project information updates) has been prepared to be shared with WDCC, WUR library, and WUR international.

3.4 Definition of data sharing modalities

Key information on WUR data sharing policies and ownership guidelines has been shared along with the survey. In addition, the willingness of WDCC to support/assist on the advising and archiving of WUR related research data outputs has been communicated.

3.3 System running

The initiative to create a dedicated web platform to WUR projects on Ethiopia has been proposed to facilitate data sharing and ease of access to research outputs. Such platform could be based on existing WUR research/project communication platforms. The discussion with WDCC and WUR library on

the topic has indicated that a dedicated finance would be required to keep the platform running and up to date.

4. Ethiopia days

4.1 Preparation

The WUR 'Ethiopia-group' is organizing a OneWageningen Ethiopia-day with the interest of creating a platform for people that have a collaborative research interest on Ethiopia. Several activities have taken place in preparation for this event. A core group, consisting of experts that are actively working on Ethiopia and are willing to volunteer with the the steering committee was formed. Several meetings were held to define the objective, identify participants, and design the structure of the day as well as specify the expected outcomes from the workshop. A SharePoint page was setup to further facilitate the communication across the core group.

4.2 WUR interaction day

The date of the interactive workshop is set to 11-February-2020, with an objective of creating a platform for brainstorming collaboratively on new research challenges that are framed around the country's priorities and food systems. This can be used as a basis, for instance, as a platform for further strengthening WUR networks and possibly designing new interdisciplinary projects. It can also be used as an opportunity to give an update on side activities of this initiative (i.e. project inventories, survey outcomes, collaboration with Wageningen international projects database and Wageningen data competence center (WDCC) on creating a dedicated meta-/data repository on Ethiopia, and reinforcing connections with the Alumni group).

The morning session will be used to discuss on national challenges (as identified by our partners in Ethiopia) and assess what type of collaboration and future initiatives will be required to tackle them. Small interdisciplinary groups will be formed to identify the knowledge already attained, the knowledge gaps and the barriers for the implementation. In addition, many networks and stakeholders will be identified.

The afternoon session will start with a kickoff by Louise Fresco. Then, the identified areas of interest for future program/project design are expected to be further discussed and developed in collaboration with stakeholders and WUR partners in Ethiopia during a follow up workshop of 'WUR in Ethiopia', to be organized in Ethiopia by mid-2020.
Experts from WCDI will be used to guide the discussions on new challenges around food systems. In addition, this initiative is working in tandem with a

similar initiative being implemented in Ethiopia (e.g. Ethiopian Institute of Agricultural Research, Ministry of Agriculture, GIZ).

4.3. WUR in Ethiopia

The new research topics/challenges identified during the 'Ethiopia day' in WUR will be further discussed and developed with Ethiopia based partners, alumni's, and other networks to finalize the research proposal. Communications have already been established and initial planning have been made with the WUR Alumni office and representative of WUR alumni's in Ethiopia. The support of WUR and The Netherlands embassy in Ethiopia has been granted to host/support the event. The event is expected to take place by mid-2020.

4.3 Inside-Out day

This inside-out Ethiopia day will be used to communicate/pitch the newly developed research themes and projects to potential funders. This event is expected to take place in Wageningen by end-2020.

5. Networking

Throughout the activities of this project several networking opportunities were created, and the upcoming workshops will grant ample platforms for strengthening further interactions. With in WUR, it has created an opportunity for researchers to identify who is doing what in Ethiopia. This is expected to further foster collaboration between researchers towards designing an integrated and impactful research.

In addition, the initiative is also creating a platform for WUR alumni to reconnect with WUR on researches related to Ethiopia. In addition, partner institutions will also be engaged on identifying country priorities and future research projects.

6. Recommendations

Based on the experiences gathered and encounters made while working on this project, several recommendations could be made that could help research outputs reachable, and datasets more accessible to facilitate interdisciplinary research. One of the most important issue is in relation to making research data available. Considering the vast research made by WUR on Ethiopia and learning that the dataset available on WUR archive are only less than 10, indicates there might be a need for a better motivational tool for researchers to send in their research output and dataset to the WUR library. In addition, the support that WUR provides for PhD research and project dataset should be clearly communicated. Project related datasets are often large and could also include data from external sources. In addition, a smooth navigation between research project information, out puts, and related datasets would be essential to make research outputs available and impactful. Information regarding research and projects could also be easily

available if researchers could put in and update their associated activities on their personal WUR pages, and maintain webpages related to research projects. In addition, the experience from the project inventory showed that a proper entry related to research projects by project managers, researchers, and PhDs is required to track down research activities related to countries. The different sources used for projects registry (e.g. promise (for PhD projects), my projects (related to internationalprojects@wur), publications) often creates mismatch on number of projects that are available across different project databases of WUR (e.g. research.wur, internationalprojects@WUR, research results). The use of unique identifier would be essential to automatically synchronize projects and related outputs across different platforms while avoiding duplication and mismatches.

Another important issue is regarding the follow up, update and maintenance of the practical exercises (i.e. research database relates activities) related to the initiative. Continued financial and technical assistance would be required to support dedicated efforts.

The usability of food systems approach in identifying gaps and design of interdisciplinary research related to this initiative could be further investigated as it is promoted by WUR as an interdisciplinary framework for research and policy in order to realize the sufficient supply of healthy food. The use of food systems would be essential to connect country level challenges with global SDGs, thus, making the local challenges relevant to international donors.

Such initiative made for Ethiopia could be taken as an example for organizing similar activities with a geographical or thematic context. The reflections here could be taken to better support and organize this initiative as well as other upcoming initiatives.