TOOL N°3

HR PACK – PROGRAM DATA MANAGEMENT FOR HUMANITARIAN AID AND INTERNATIONAL DEVELOPMENT CSOs

« TYPICAL CASE » SCENARIO

E - SPECIALISED AND CENTRALISED RESPONSIBILITIES WITHIN A DEPARTMENT

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Created in 2006, CartONG is a French H2H/support NGO specialized in Information Management. Our goal is to put data at the service of humanitarian, development and social action projects. We are dedicated to improving the quality and accountability of field activities, in particular through better needs assessments and monitoring and evaluation. We act as a multidisciplinary resources and expertise centre, accompanying our partners' strategies and operations. Our staff and volunteers also support the community as a whole by producing documentation, building capacities and raising awareness on the technical, strategic and ethical challenges of digital technologies.

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1. BACKGROUND DESCRIPTION

Environment within the organisation (structure, project type, etc.)

Coordinated management of program data at national level (mission) is necessary and warrants the development of a common strategy: for example, the same program is implemented in different areas and requires the implementation of identical program data management processes or an integrated multi-sectoral approach, requiring the interoperability of data collected by different sectors/projects. The organisation works with many partners in consortium-type projects, where data is an essential part of the collaboration.

The organisation's intervention revolves around one or several particular themes, where the data collected represents a strong component of the program, used in the very implementation of activities by project teams and even recipients – such as patient registration and monitoring by physicians –. This may involve the use of several combined data management solutions. Projects carried out by the organisation include the need to follow people or infrastructure at different points in time (e.g., case management). Sensitive and/or personal data make up a substantial part of the data collected. This scenario is also recommended when a large number of geographic data is collected, and mapping is useful for implemented projects.

Needs around data

The volume of collected data is significant and comes from a variety of sources, the organisation wants to be able to aggregate data from different actors in a constant and automatic way. Several different tools are necessary for data collection, management and analysis. This requires the establishment of standard workflows and the harmonisation of data models.

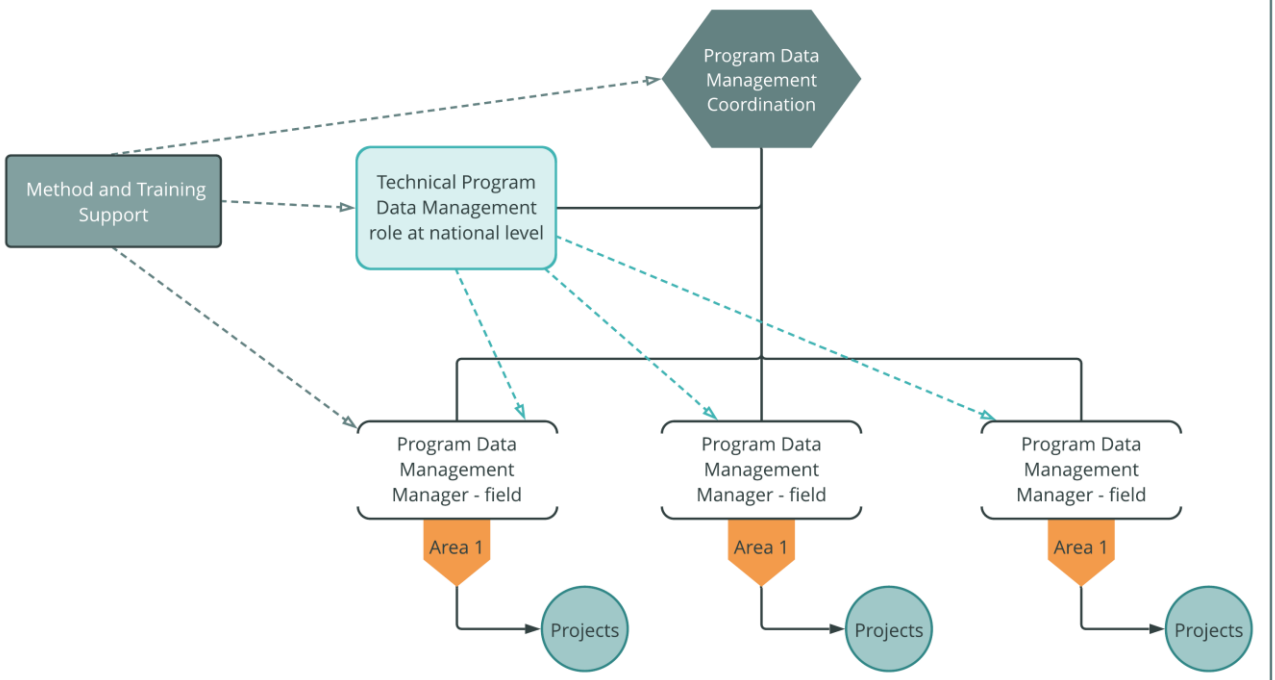
The Monitoring & Evaluation system of programs is complex, involving, for instance, frequent collection, updates of information on the same subject, numerous aggregated indicators, regular calculations and inducing complex workflows. There is a need to ensure interoperability of data from local and international partners, using various tools and data models. It is also a matter of regularly supporting them in managing their data. Data is used by project teams and/or shared on a broader scale (coordination with other actors, free sharing of data). Analyses and visualisations are widely disseminated externally and used in operational decision-making, representing a challenge of external credibility. The forms of analyses are varied and complex, such as dynamic visuals, fed and updated automatically (e.g., dynamic dashboards, maps).

Since much of the data collected may be sensitive and/or personal, it is necessary to implement good data protection practices in a systematic and coordinated manner, be they proportionate and adapted to the operational context. It is also relevant for all teams to be able to identify risks and be aware of good practices.

2. DESCRIPTION OF THE ORGANISATIONAL SCENARIO

In this scenario, the "Program Data Management Coordination" role guides and coordinates the program data management strategy. He/she is supported in this task by one or several sectoral technical Program Data Management roles at the national level (e.g., Database Manager – DD, or Geographic Information Systems Manager – GIS), responsible for providing technical guidance and overseeing all achievements in his/her area of expertise. In intervention areas, "Program Data Management Managers" are responsible for performing data management tasks. In parallel, all roles may be supported by a method and training support – a flying trainer – present in the region, deployed in the event of one-off needs.

Figure 1: Structure of the roles and responsibilities of scenario E



Program Data Management Coordination role	Technical Program Data Management role at national level
At the coordination level, data management responsibilities are primarily strategic and methodological. They should be used to guide the action of roles with technical expertise on areas of intervention and projects. The person in this role is involved in all matters related to program data management, leading teams with advanced technical skills in the areas of intervention, and therefore needs a thorough understanding of issues surrounding the data. The person taking on these responsibilities must have a job description devoted to data management, via a	The main responsibilities of this role are to directly perform high-level technical tasks and to support the Program Data Management Manager (field) in performing routine technical tasks. The person in this role must therefore have advanced execution skills in database management, data analysis or geographic information systems. The main area of expertise of the person in this role depends on the mission's priority needs in terms of program data management.

Program Data Management Coordinator position for instance.	
Program Data Management Manager role (field)	**Method and Training Support role**
The main responsibilities of this role above all cover pursuance of the strategy, and the direct implementation of data management processes. The person filling this role is capable of responding to fairly advanced technical requests on intervention areas and to guide and support project teams in managing their data.	In this scenario, there may be a great number of technical training needs because of the mission's technical requirements. It is hence essential that the person filling this role be mobile and quickly deployed if need be. Consequently, it may be appropriate to base this role at the regional office level.

The **Program data management coordination role** includes strategic and methodological responsibilities first and foremost. Its main objective is to create a coherent and functional program data management system between areas and projects, while needs around the data are clearly complex. The person occupying this position ensures the consistency of data models and tools, good management of information flows and aggregation of data. He/she chooses the technical tools to use and manages access to data collection/management platforms, prepares good practice framework documents and ensures their dissemination. This function ensures a clear understanding of data issues through training and coaching. The coordinator provides guidance, at least functionally, to Program Data Management Managers, and methodological support to partners. This helps to improve data culture within the mission and with partners. He/she is also able to carry out a diagnosis of the mission in terms of data management and to identify priority action points.

At the same time, the **coordination role** is the guarantor of responsible data management. He/she must thus ensure that the principles, legislations and best practices of the sector are implemented, both in terms of data protection and security, and decide which strategy is best in terms of securing data. He/she must also be able to raise awareness among his/her colleagues and identify areas of improvement.

The **Technical Program Data Management role at national level** supports program data management coordination by carrying out technical achievements related to his/her area of expertise. Also, the responsibilities that come with the role may vary depending on the individual.

- These may include, for instance, support for database management; this role primarily focuses on responsibility for the proper management of databases and workflows around the data. To do so, it is essential that the person filling the role contribute to the preparation of the collection and provide methodological guidance for data model construction, manage access to data collection/management platforms, and control data aggregation at the national level.
- This role may also assume the responsibilities related to data analysis and visualisation, which are necessary from a mission perspective. This therefore includes the need to aggregate data and perform overall analysis and visuals, such as dynamic dashboards.
- The role could also be dedicated to the management of geographic information systems. In which case, the person filling the position is primarily responsible for retrieving and aggregating geographic data in order to make static or dynamic maps.

The Program Data Management Manager's role refers first and foremost to a technical profile in charge of execution in data management in his/her intervention area or project. His/her responsibilities focus on managing data collection, structuring, production, analysis and visualisation activities. Regarding structuring and collection, the Program Data Management Managers encode data collection questionnaires and provide technical support to enumerators. The person filling this role is also responsible for creating or adapting and managing databases, mastering the use of data management platforms. He/she also implements data processing processes ensuring traceability, reliability and quality (such as data preparation, cleansing, triangulation and validation). From an analysis point of view he/she should be able to interpret the program's information needs and perform visualisations, going beyond simple analyses on Excel, on several types of data. He/she also can be an expert in a particular tool (ex: QGIS for map making). He/she is able to provide an interpretation of the analyses carried out and guide the use of the data.

At the same time, this role is also responsible for supporting programs and the M&E department on certain small-scale methodological aspects, such as identifying collection needs at project start-up and thus preparing data harvesting, management and analysis plans. He/she should be able to identify the technical implications of data management related to the needs expressed by the program or M&E teams. The person filling this role should make recommendations for the calculation of indicators and the Monitoring & Evaluation plan.

This role should in no way replace the M&E role. Program Data Management technically supports M&E but cannot substitute a person with technical responsibilities and skills specific to monitoring and evaluation, clearly distinct from program data management.

Regarding data protection and security, the Program Data Management Managers are responsible for seeing to it that the directives issued by coordination are properly followed. They also raise awareness among all teams in their intervention area of good data protection and security practices.

The **purpose of the methodology and training support role** is, above all, to train the teams, as well as to help the mission structure itself and improve its strategy and workflows. The person in this role must be able to quickly identify weaknesses and strengths to provide external support. This position must be filled by a person with experience in data management.

Headquarters' involvement: This scenario is advantageous when the organisation's headquarters have little structure in program data management. Field teams are autonomous and competent, requiring minimal involvement from headquarters. However, if the program data management activities implemented for the mission entirely exceed the skills of collaborators at headquarters, this may result in:

1. Lack of interest in the subject and lack of capitalisation, preventing the reuse of program data management methods and tools in other missions.

2. The adoption of processes and procedures relating to program data management, or completely outdated and inappropriate tools, leading to frustration among the teams.

3. The inability of the coordination role to communicate with a referent in his/her organisation, which may also lead to frustrations.

When this type of scenario becomes frequent in an organisation (several missions), it may then be interesting for headquarters to structure itself in order to make relevant strategic decisions to improve overall program data management within the organisation (e.g., choice of tools, protocols, harmonised methods).

3. BENEFITS, LIMITATIONS AND RISKS

This scenario, the most comprehensive of all, has the **advantage** of mobilising many specialised resources dedicated to program data management. The presence of technical resources at national level (therefore neither by area nor by project) helps to ensure that the coordination role focuses primarily on strategic and methodological orientations.

In a manner consistent with the previous scenario, the presence of a dedicated Program Data Management Coordination role allows for technical profiles to be properly supervised in the intervention areas, guided by a clear strategy and methodological orientation. To achieve this, the person in charge must be able to understand the technical challenges and opportunities of the solutions proposed by the field. This also represents a major advantage when few program data management resources are available at headquarters. Finally, field teams are autonomous.

However, this may also have some **limitations** and result in the adoption of workflows that are difficult to reconfigure, due to the higher number of levels as compared to other scenarios.

With such a large department, one of the major **risks** is that the program data management department fully absorb resources and that it will hence be difficult for an M&E department to grow in parallel. As with previous scenarios, responsibilities and mechanisms for cooperation between the two departments should be formalised as much as possible. It is essential to question the weight and precedence of one department over another, and to measure the relevance of such a large investment against potential benefits, especially vis-à-vis other departments.

4. POSSIBLE ADAPTATIONS OF THE SCENARIO

Adaptation 1 – Different levels of needs from one area to another

In some missions, needs may not be equivalent from one intervention area to another, from a data management perspective: some areas do not necessarily require a Program Data Management Manager, but the presence of an M&E manager is paramount. Finally, some organisations do not always have the financial resources for both posts to coexist in each intervention area.

It is thus possible to have a mixed scenario with Program Data Management Managers and M&E-Program Data Management Managers according to the areas.

- ➔ The choice between an M&E manager and a Program Data Management Manager is not always easy to determine, a number of important elements need to be taken into consideration. For example, if the sector is very technical and well-managed, it may be more advantageous to recruit a Program Data Management Manager, as Monitoring & Evaluation will be carried out by the program teams themselves. Whereas if the sector requires an in-depth reflection on M&E, it is essential to have a profile that is geared towards this field, especially if the volume and use of the data is limited.

Adaptation 2 – A reinforced field structure

When the needs of an area or project are highly developed, it may be necessary to reinforce teams by multiplying program data management positions, for instance by adding a survey and field data collection focal point, a person dedicated to the management of platforms and databases in the area, a data visualisation specialist. In that case, the Program Data Management Manager's role – like the coordination role – in the area becomes that of coordinating the various elements of his/her team. This structure is adapted when the number of surveys and the volume of collections are significant, as well as the needs for analysis and visualisation (for example if there are many partners in a given area, or on a particular project).

Adaptation 3 – A trainer in the country of intervention

When multiple partners need to be trained, or when the level of the teams is insufficient (weak data culture in the country of intervention, or due to recruitment difficulties, or to a high turnover), it may be relevant to have a full-time trainer based in the country. This would enable regular training, the reinforcement of local partners' national capacities, and for mission data culture to be improved. This solution may be of short- or long-term duration.

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