



**[Iraq Multi Donor Trust Fund - ITF]**  
**ANNUAL PROGRAMME<sup>1</sup> NARRATIVE PROGRESS REPORT**  
**REPORTING PERIOD: 1 JANUARY – 31 DECEMBER 2011**

Programme Title & Number
<ul style="list-style-type: none"><li>• Programme Title: Support to improving Management and Safe use of Medical Equipment</li><li>• Programme Number: D2-29</li><li>• MDTF Office Atlas Number: 74325</li></ul>

Country, Locality(s), Thematic Area(s) <sup>2</sup>
Iraq, 6 Governorates (Anbar, Kerbala, Qadissyah, Salah Al-Din, Sulaymaniyah and Thi-Qar), Health

Participating Organization(s)
WHO

Implementing Partners
<ul style="list-style-type: none"><li>• Ministry of Health</li></ul>

Programme/Project Cost (US\$)
MDTF Fund Contribution: USD2,540,683
Agency Contribution Core funding: USD55,000
Government Contribution <i>(if applicable)</i>
Other Contribution (donor) <i>(if applicable)</i>
<b>TOTAL: USD2,595, 683</b>

Programme Duration (months)
Overall Duration: 24 months
Start Date <sup>3</sup> : 02 Mar 2010
End Date: 31 Dec 2012
Operational Closure Date <sup>4</sup> : 31 Dec 2012
Expected Financial Closure Date:

Programme Assessments/Mid-Term Evaluation
Assessment Completed - if applicable <i>please attach</i> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Date: __3 <sup>rd</sup> Quarter 2010__
Mid-Evaluation Report – if applicable <i>please attach</i> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Date: _____

Submitted By
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<sup>1</sup> The term “programme” is used for programmes, joint programmes and projects.

<sup>2</sup> Priority Area for the Peacebuilding Fund; Sector for the UNDG ITF.

<sup>3</sup> The start date is the date of the first transfer of the funds from the MDTF Office as Administrative Agent. Transfer date is available on the [MDTF Office GATEWAY](http://mdtf.undp.org) (<http://mdtf.undp.org>).

<sup>4</sup> All activities for which a Participating Organization is responsible under an approved MDTF programme have been completed. Agencies to advise the MDTF Office.

## **NARRATIVE REPORT FORMAT**

### **I. Purpose**

- Provide the main outputs and outcomes/objectives of the programme.

The project aims at providing assistance to the Iraq Ministry of Health (MoH) to promote sustainable changes and improvements of health care services and enhances the quality of health interventions by focusing on building a coherent medical equipment management system guided by sound policies and good management practices as well as improving institutional skills and capabilities.

The outcome of the project is to promote and improve systems approach to management and safe use of medical equipment in the six targeted governorates.

The project will be implemented in close consultation and partnership with the Iraq MoH at central level and with full involvement of the six targeted governorates DoHs in Anbar, Qadissyah, Kerbala, Salah Al-Din, Sulaymaniyah and Thi-Qar.

#### Project Outcome:

The project is programmed for duration of 24 months and is expected to contribute to the outcome by achieving the following outputs:

Output 1: MoH has an improved Medical Equipment Management System in six target governorates

Output 2: MoH has an improved capacity to formulate policies and national standards on quality, safety and management of medical equipment in line with international standards.

- Explain how the Programme relates to the Strategic (UN) Planning Framework guiding the operations of the Fund/JP.

The project supports and actively promotes the attainment of targets as expressed in (a) International health related agreements including International Health Regulations (IHR 2005), (b) the Iraq National Development Strategy (NDS), (c) the International Compact with Iraq (ICI) and reflects the priorities indicated in the UN Assistance Strategy for UN intervention in the health sector.

The project will contribute to more effective and efficient use of medical equipment. This is in line with the national priorities in regard to better quality medical care services, especially in terms of sustainable management and safe health care services. It will directly contribute to the achievement of national policies and UNCT commitments as follows:

(a) NDS goal: 4 – improve the quality of health

(b) ICI benchmarks 4.4.1.4: improve health and nutrition of all Iraqis as a cornerstone of welfare and economic development.

The project will also contribute to addressing UN Millennium Development Goals (MDG) 4, 5, and 6 through institutional support to the health system in developing policies, building capacities, and providing resources to the medical equipment program.

WHO has developed international strategic direction for Essential Health Technologies (EHTs). This EHT program aims at improving health and reducing morbidity and mortality through the safety, availability, and appropriate use of essential health technologies within health systems. The EHT's are expected to contribute to the support of policies and guidelines operationalization, the capacity building of management teams at all levels as well as increasing patient safety by ensuring access to safe and effective medical equipment as addressed in this proposed project.

## II. Resources

### *Financial Resources:*

The financial situation as of 31 Dec 2011:

Funds Committed	\$1,751,768	% of approved	69%
Funds Disbursed	\$1,294,547	% of approved	51%
Forecast final date	31 Dec 2012 (project operationally closed).		

WHO Core funding, amounted to USD55,000 has been partially used to support output 2 - MoH has an improved capacity to formulate policies and national standards on quality, safety and management of medical equipment in line with international standards.

### *Human Resources:*

- National Staff: Provide details on the number and type (operation/programme).

For the implementation of the various project components, one biomedical engineer, one biomedical application specialist, one data management specialist, and one finance assistant have been supporting the implementation of the project.

- International Staff: Provide details on the number and type (operation/programme)

One international health care technology engineer based in WHO Office in Amman is managing and coordinating the project throughout the entire implementation period. It is worth mentioning that other WHO international staff at both country and regional office has been providing technical support in the area of medical devices standards and physical rehabilitation component.

## III. Implementation and Monitoring Arrangements

- Summarize the implementation mechanisms primarily utilized and how they are adapted to achieve maximum impact given the operating context.

The project is being led by WHO in close consultation and partnership with the MoH and with full involvement of targeted governorates DoHs. A Project Steering Committee (PSC) chaired by MoH central level and composed of representatives from relevant MoH directorates, relevant Governorate DoHs and WHO was established. The central maintenance repair shop (Kimadia) in Baghdad, the Directorate of Technical Affairs and the Directorate of Engineering Projects at MoH, and Baghdad University/College of Biomedical Engineering participated to strengthen the overall alignment in fulfillment of the project implementation.

The PSC has met once in Erbil for three days from 24 to 26 July 2011 with the aim to review the implementation status of the different project components and discuss obstacles and ways to mitigate them.

By the end of the meeting, following outcomes were materialized:

1. Assessed implemented activities in meeting the output and outcome of the project.
2. Developed updated plan of action with implementation time table for each project component.
3. Identified and agreed on the role of each stakeholder for the remaining period of the project.
4. Agreed on ways to mitigate the obstacles hindering the implementation.
5. Prepared recommendations paper for expediting the implementation of the project.

WHO has coordinated and monitored the implementation of the whole program and provided technical and managerial support to PSC assisted by nationals inside Iraq (engineers, and finance/administrative assistant).

In addition, the video conferencing capacity available at WHO Iraq Office in Amman and WHO Iraq Office placed at the Ministry in Baghdad has facilitated the follow up and coordination of activities given the security situation and assisted in continuously liaising with national staff on the ground.

This mechanism has ensured optimal communication and collaboration between all partners and stakeholders and facilitated smooth implementation.

- Provide details on the procurement procedures utilized and explain variances in standard procedures.

The procurement component and provision of biomedical test instruments, tools, informatics equipment, furniture, customized maintenance vehicles will be done according to WHO rules and regulations.

In order to establish the needs of the medical equipment repair shops and identify the gaps a needs assessment was carried out for the targeted repair shops.

Consultations between WHO and the project steering committee were held to agree on the final requirements. Bill of quantities with detailed generic technical specifications for the agreed items were prepared, with cost estimates.

Finally, the prepared requirements were processed by WHO, whereupon WHO procedures for tendering and contract awarding were applied to the purchasing and delivery of equipment and supplies.

Furthermore, organization manuals providing strict guidance and procedures on invitation to bids, bids opening, bids analysis, bids review and contract award, including conditions abiding both parties (the successful bidder and the organization) are available for international and local procurement. There are specific committees at each stage of the bidding process.

- Provide details on the monitoring system(s) that are being used and how you identify and incorporate lessons learned into the ongoing project.

The project is designed to meet the requirements for monitoring as stipulated within the Memorandum of Understanding of the UNDG ITF as well as by the standard policies and

procedures of WHO. A well-developed monitoring and evaluation system is in place to track information and project status, to ensure activities are moving as planned, budget utilization stays within allocated resources, and desired outputs are accomplished. Based on the specific nature of the project components, the hereafter described monitoring and evaluation procedures will be followed to help the organization/project steering committee to relevant information that can subsequently be used as the basis for programmatic fine-tuning, and planning.

Financial tracking is being done according to WHO rules and regulations in issuing financial statements related to commitment and disbursement during the implementation of the project components, as well as WHO's obligations to the UNDG ITF.

For the contracting of physical construction and/or small-scale rehabilitation of medical equipment repair shops, the contract will be awarded to local private contractors. The local private contractors will sign a contract with the relevant Department of Health. The role of WHO and MoH is identified according to the MOU, where MoH has the supervision role and WHO the monitoring role.

An external independent evaluation or End-Of-Project-Evaluation will be conducted three months before the end of the project. The project evaluation will review and assess all project assumptions, results, outcomes, and finances as well as to (a) assess the contributions of the project towards the anticipated outputs while distinguishing these from the influence of other, external factors, (b) draw lessons for improving the design and management of upcoming activities, and (c) support substantive accountability and WHO repositioning. The Terms of reference of the independent evaluator will be defined jointly by the PSC/MOH and WHO, while the process of identifying the independent evaluator will be carried out by WHO.

Lessons Learned Workshop will be organized following the completion of the external independent evaluation to present findings, outcomes, and recommendations in order to develop an exit strategy for the project and to trigger the transition to local institutions/stakeholders responsible for sustaining the process and the various initiatives undertaken by the project. A report from this workshop will be disseminated to MOH officials and counterparts involved in the implementation of the project and made available on MOH and WHO websites for the public.

WHO and the PSC are maintaining regular communications to evaluate the implementing process and impact of the project, and to identify constraints and solutions in order to ensure a flexibly efficient approach. The project is monitored by WHO office based in Amman and assisted by WHO sub-offices inside Iraq. WHO national staff are coordinating with targeted DOH to prepare and forward periodic reports to Amman for proper monitoring and evaluation.

- Report on any assessments, evaluations or studies undertaken.

Conducted fact finding and assessment of targeted six governorates (Anbar, Kerbala, Qadissya, Salah Al-Din, Sulaymaniyah and Thi-Qar). The assessment built the basis to put in place a time-bound plan of action for the implementation of the different project components.

#### IV. Results

- Provide a summary of Programme progress in relation to planned outcomes and outputs; explain any variance in achieved versus planned outputs during the reporting period.

The conducted interventions aimed at meeting the outcome of the project in terms of implementing a system approach to manage medical equipment service activities in Iraq.

Management of medical equipment is vital to ensure quality of provided health-care and to improve the health of populations.

Management of medical equipment will be most effective when considered in the wider context of the complete health-care package necessary to address public health needs. Therefore, rather than just focusing on the technological issues involved in medical equipment, it is been agreed with the project steering committee to frame the work in three components – Availability, Accessibility, and Appropriateness.

The interventions addressed following areas:

- 1- Supporting a system in place, which ensures that all risks associated with the acquisition, use, maintenance, decommissioning and disposal of medical devices are minimized.
  - 2- Support good record keeping as essential element for effective management of medical equipment.
  - 3- Maintaining and calibrating medical equipment, registering of assets, supporting writing specifications to ensure purchasing of the correct items; safe disposal of medical equipment;
  - 4- To look into every activity where medical equipment are used and understands how to care for them, making sure that they are appropriate and safe for their intended use.
  - 5- Taking major review to common understanding throughout all of the activities by what it means to 'manage' medical equipment. This was done by reviewing and writing guidelines and standards.
  - 6- Supported the targeted DoHs in the demands of maintenance departments in terms of conducting refresher, advanced training courses as well as Training of Trainers workshops.
- Report on the key outputs achieved in the reporting period including # and nature of the activities (inputs), % of completion and beneficiaries.

Output # 1 - MoH has an improved Medical Equipment Management System in six targeted governorates (completed 75%).

- Conducted fact finding and needs assessment of the medical equipment program at targeted six governorates (Anbar, Kerbala, Qadissiya, Salah Al-Din, Sulaymaniyah and Thi-Qar). The assessment built the basis to put in place a time-bound draft plan of action for the implementation of the different project components. The plan of action was reviewed and endorsed by the project steering committee (completion 100%).

- Medical equipment inventories at health institutions in targeted governorates have been finalized. The equipment inventory is an essential part of an effective medical equipment management. In order to be effective in assisting with various medical equipment management activities, the inventory is been updated continually so that it provides at any

given moment a correct look at the status of medical equipment within the health-care facility (completion 100%).

- Improved and enhanced skills of 241 medical equipment engineers and technicians (203 male and 38 female) through international and national training courses<sup>5</sup> in the area of medical equipment management as well as maintenance (corrective and preventive) of a broad range of medical equipment. During 2010 and 2011; 338 staff was trained, whereas initially the plan was to train 285 staff, nonetheless the assessment revealed the need to invest more in upgrading the skills and abilities of staff to run the medical equipment program more effectively and efficiently.

The courses provided the necessary balance: (a) to update the technical skills and abilities of engineers and technicians for operation and maintenance, (b) explain principles of planning and operation of the medical equipment, (c) exercise preventive maintenance session, (d) explain schematic diagrams for repair and maintenance, and (e) exchange information and experience.

- Ten (11) national training workshops were conducted inside the country to improve practical skills for 216 maintenance and repair personnel.
- WHO organized two-week training course on Medical Equipment Management. The training was organized in Malaysia and provided opportunity for one DG/DoH Diwaniyah, Assistant DG/DoH Kerbala and eight senior engineers from DoH Anbar, Diwaniyah, Kerbala, Salah Al-Din, Sulaymaniyah and Thi-Qar (1 female & 9 male).
- Advanced training course on corrective and preventive maintenance of endoscope system (flexible and video endoscopes) for 8 maintenance staff (1 female and 7 male) have been conducted in China. The course provided an opportunity for 5 staff to attend an overseas training for the first time ever challenging their skills and abilities as well as provided comprehensive review of all the repairs, operations, disassembly and replacement parts of endoscope for the other 3 staff.

- First set of biomedical test/calibration instruments have been delivered to the six targeted end users and the contracting for the 2<sup>nd</sup> set has been completed and expected to be delivered during first quarter of 2012. The test instruments are tools to ensure accurate measurements and functioning of medical equipment at healthcare facilities.

- Procurement of office equipment (informatics) has been finalized and delivery is under way.

- Delivery of educational publications completed and monthly delivery of Healthcare Engineering Journal is ongoing.

- Construction work for one middle-scale biomedical equipment maintenance workshop has started and two small-scale constructions are at the final stage of contracting.

Output#2 - MoH has an improved capacity to formulate policies and national standards on quality, safety and management of medical equipment in line with international standards (completed 30%).

- Supported ongoing technical work in the area of developing/adopting strategy, standards and guidelines for medical equipment management.

○ The process of reviewing and updating strategy and procedures for managing medical equipment is initiated, and some of the needed capacity building activities have been conducted.

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<sup>5</sup> See Annex 1 for data on capacity building

- Drafted guidelines on medical equipment assessment, planning and monitoring and evaluation. This guideline will be used as an input in the process of updating the strategy and standards in place. Throughout this process efforts were made to build the capacity of national staff on assessment methodology as well as planning process.
- Provided link to international networks and access to a web-based management tool that provides relevant information and data on management and monitoring of medical equipment.

This tool helped (1) in preparing generic technical specifications for a wide range of medical equipment needed to be procured; (2) in identifying resources needed for proper selection, use, maintenance and management of healthcare technology; and (3) in providing access to a monthly medical device Journal on the latest and vital issues regarding patient safety and equipment management.

- Explain, if relevant, delays in programme implementation, the nature of the constraints, actions taken to mitigate future delays and lessons learned in the process.

The original implementation period of the project is for two years with project end date 02 March 2012, nonetheless in order to accomplish some of the important activities which have already been initiated and will last beyond the project end date, for instance the process for reviewing and updating national strategy and procedures for managing medical equipment and physical construction of medical equipment workshops, the project was extended for additional 10 months till 31 December 2012.

The total percentage of budget implementation for the project has reached 69% and most of the planned activities have been either implemented or initiated. The main reason for the time extension is to provide the opportunity to complete all activities that were planned in the initial project document and allow adequate time to close the project in a smooth and effective manner.

The project encountered several constraints that resulted in delaying the implementation as explained below:

The process of rehabilitation/reconstruction of three biomedical equipment maintenance workshops has been delayed as initially planned due to administrative procedures and formalities at the level of DoH and MoH. It is worthwhile to mention that the work for one middle-scale construction has already started in Thi-Qar and work is expected to complete by April 2012 and for the other two small-scale constructions the work is expected to complete by April and June 2012 consecutively.

The 2nd set of biomedical test instruments has been procured and the delivery and training component are expected to take place till May 2012.

There were delays in procuring the customized maintenance workshop vehicles as offers received were not adequate and not matching requested specifications and new offers are being collected. The process of procurement and delivery to be completed by June 2012.

The revised work plan has been prepared with the consideration to meet all planned activities and achieve the outcome of the project within the time extension requested.

Technical support will be in place and backstopped from both the regional and HQ offices particularly in regard to finalizing the procurement of the hardware components



(biomedical test instruments and customized maintenance vehicles) and benefiting from the tools and resources resulting from the Global Initiative on Health Technologies / Medical Devices.

The technical support will also facilitate and encourages communication between the members of the region to benefit from each other experience to move forward the agenda of management of medical equipment.

A senior health facility engineer funded from other sources, will co-ordinate and follow up closely the construction work of three biomedical equipment maintenance workshops and ensures completion.

Furthermore, the Project Steering Committee will remain for the whole duration of the project and two meetings are agreed during 2012 (May and August) to address any challenges / bottleneck which might face the project implementation.

- List the key partnerships and collaborations, and explain how such relationships impact on the achievement of results.

The main counterpart for the implementation of the project is the MoH represented by different directorates; the Directorate of Technical Affairs and in particular the Biomedical Equipment Department and Needs assessment Department the Directorate of Projects and Engineering Services, central maintenance repair shop in Kimadia/Baghdad as well as Baghdad University/College of Biomedical Engineering.

The partnership provided a forum through which members can combine their strengths and implement solutions that no one partner could achieve alone. The partnership supports national training programmes; management and standard issues, and data information system.

In addition, the MoH and DoH personnel continue to be fully engaged in all implementation stages so as to ensure the ownership of the project by the targeted stakeholders once the project is completed.

- Other highlights and cross-cutting issues pertinent to the results being reported on.

Key issues delaying progress of the project is the different stakeholders involved within the MoH: Directorate of Technical Affairs -Biomedical Equipment Department and Needs assessment Department; Kimadia –state company for provision of medicines and medical appliances; and Directorate of Projects and Engineering Services, therefore has been agreed that the Biomedical Equipment Department at the Directorate of Health will lead the process of formulating national strategy, standards and guidelines, whereas the Directorate of Projects and Engineering Services will be handling issues of capacity building, procurement and rehabilitation.

The conducted training courses during the reporting period have taken into consideration the sex balance where possible. Out of a total of 241 participants trained, 38 were female (15.7%). The PSC has recognized the low participation of females in capacity building

workshops and has considered practical measures to raise their participation during the remaining period of the project.

The technical services provided by the engineering department at targeted governorates have an impact on the quality of health care services provided to the population with regards to the right to have access to safe and appropriate health technology services.

- Provide an assessment of the program/project based on performance indicators as per approved project document using the template in Section VIII, if applicable.

The project started in March 2010 with original implementation period for two years with project end date 02 March 2012, nonetheless in order to accomplish some of the important activities which have already been initiated and will last beyond the project end date, for instance the process for reviewing and updating national strategy and procedures for managing medical equipment and physical construction of medical equipment workshops, the project had to be extended for additional 10 months till 31 December 2012. It's worth to mention that this is the first time extension request for the project.

#### **V. Future Work Plan (if applicable)**

- Summarize the projected activities and expenditures for the following reporting period (01 January - 31 December 2012), using the lessons learned during the previous reporting period.

1- Reviewing and updating strategy and procedures for managing medical equipment program. Technical support will be provided throughout the duration of the project and assisted MoH in producing a national document on management of medical equipment.

2- Complete construction work for one middle-scale and two-small scale biomedical equipment maintenance workshop in Thi-Qar, Anbar and Kerbala, as follows:

a. Construction work for one middle-scale biomedical equipment maintenance workshop has started in Thi-Qar and work expected to complete by April 2012.

b. Construction work for one small-scale biomedical equipment maintenance workshop in Anbar is at the final stage of contracting and work is expected to last till April 2012.

c. Tendering process for the construction of one small-scale biomedical equipment maintenance workshop in Kerbala took longer than anticipated, due to the administrative procedures and formalities at the level of DoH Kerbala and MoH. The work once starts will last till June 2012.

3- Delivery of the 2nd set of biomedical test instruments that is expected to take place between February and May 2012.

4- Procurement and delivery of customized maintenance vehicles.

5- Selected Training of Trainers workshops (ToT) will be conducted to ensure (a) full utilization of provided biomedical test instruments and (b) more participation of female engineers and/or technicians.

6- An external independent evaluation conducted during September / October 2012.

7- Lesson learned workshop, to be organized following the completion of the external independent evaluation to present findings, outcomes, and recommendations in order to develop an exit strategy for the project and to trigger the transition to local

institutions/stakeholders responsible for sustaining the process and the various initiatives undertaken by the project.

- Indicate any major adjustments in strategies, targets or key outcomes and outputs planned.

n/a

## VIII. INDICATOR BASED PERFORMANCE ASSESSMENT

	Performance Indicators	Indicator Baselines	Planned Indicator Targets	Achieved Indicator Targets	Reasons for Variance (if any)	Source of Verification	Comments (if any)
<b>Outcome 1: Systems approach to management and safe use of medical equipment in the six target governorates have promoted and improved</b>							
<b>Output 1.1</b> MoH has an improved Medical Equipment Management System in six target governorates	Indicator 1.1.1 Number of targeted repair shops constructed / rehabilitated.	0	6	2	Construction of 3 repair shops is planned for DoH Kerbala, Thi-Qar and Anbar. DoH Diwaniyah and Salah Al-Din will be supported with furniture and DoH Suleimaniyah is constructing using own funds.	Project Progress Report	
	Indicator 1.1.2 Number of staff trained on the maintenance of medical equipment.	0	285	338 (118%)	Assessment revealed the need to invest more in upgrading skills and abilities of staff in order to run the medical equipment service activities more effectively and efficiently.	Training reports and certificates	
<b>Output 1.2</b> MoH has an improved capacity to formulate national standards on quality, safety and management of medical equipment in line with international standards.	Indicator 1.2.1 Number of regulations, standards developed and adopted.	No	Yes	Drafted guidelines on medical equipment assessment, planning and monitoring and evaluation.		MoH letter	Throughout this process efforts were made to build the capacity of national staff on assessment methodology as well as planning process.

## **VI. Abbreviations and Acronyms**

DG:	Director General
DoH:	Department of Health
Kimadia:	State company for Drugs and Medical Supplies and responsible for maintenance of equipment for whole Iraq.
EHT:	Essential Health Technology
ICI:	International Compact with Iraq
IHR:	International Health Regulations
MDG:	Millennium Development Goals
MoH:	Ministry of Health
MOU:	Memorandum of Understanding
NDS:	National Development Strategy
PSC:	Project Steering Committee
TOT:	Training of Trainers
WHO:	World Health Organization

Annex 1 Data of Capacity building during the reporting period

	Total Number of			
	No. of Courses	Participants	Female	Male
Overseas training courses	3	25	3	22
National Training Activities	11	216	35	181
<b>Total</b>	<b>12</b>	<b>241</b>	<b>38</b>	<b>203</b>

Annex 2 Photos of overseas training courses and national training activities



Medical Equipment Management Training in Malaysia including introduction to test instruments



Local workshop courses on broad range of medical equipment (Surgical, Laboratory, Life Saving Equipment, & etc)