MACCA BALANCED SCORECARD

If you do not measure results you cannot tell success from failure

If you cannot distinguish success you cannot reward it

If you cannot reward success you are probably rewarding failure

If you cannot see success you cannot learn from it

If you cannot recognize failure you cannot correct it[1]

[1] Kusek & Rist, Ten Steps to a Results-Based Monitoring and Evaluation System

1.0 Background

The balanced scorecard (BSC)[2] is a strategic planning and management tool that is used extensively in business and industry, government, and nonprofit organizations worldwide to align business activities with the vision and strategy of the organization, improve internal and external communications and monitor organization performance against strategic goals.

A balanced scorecard is normally used to achieve the following objectives:

- Increased focus on strategy and results
- Improved organizational performance by measuring what matters
- Alignment of organizational strategy with the work people do on a day-to-day basis
- Focus on the drivers of future performance
- Improved communication of the organization's vision and strategy

2.0 MACCA introduction of balanced scorecard

As part of the goal to continually improve the efficiency and effectiveness of MACCA's coordination function, in mid 2009 MACCA developed a tool based on the principles of the balanced scorecard that centralized the results of monitoring and evaluation of Implementing Partner (IP) activities that were successfully being conducted concurrently in different departments of MACCA. IP planning and operations were monitored by MACCA Operations department, Quality Assurance was managed by the QA Section, and budget analysis was undertaken by the Programme Department. The aim of the BSC is not to replace these activitie, but to draw together the results of these monitoring activities.

The BSC measures each IP against a specific set of criteria. The tool enables MACCA to monitor the output, quality and effectiveness of each IP against the same set of indicators on a quarterly basis. Not only does the tool allow for comparison between

[2] www.balanceddscorecard.org

implementers, information which could be useful for donors in funding decisions, but also provides IPs with a baseline for their own improvement and development.

3.0 Development of the BSC

The BSC development process involved a series of brainstorming and discussion sessions. In the design phase MACCA's Programme, Operations, Quality Management, Plans and MRE sections worked together to bring the BSC idea to reality and to adapt the concept to the Mine Action Programme of Afghanistan (MAPA). MAPA IPs were also involved in the BSC process and provided valuable input.

The central idea during BSC discussions was to keep the tool simple and user-friendly by setting as few indicators as possible, at the same time ensuring the tool covered the most important aspects of mine action. Discussions resulted in five indicators being set for demining operations and four for Mine Risk Education (MRE).

For clearance operations the total possible score (100%) is divided between five indicators; operations, quality management, demining accidents, cost and reporting. Recognizing that delivering mine action is the primary function of IPs, the operations indicator set was given the highest weighting and accounts for 40% of the total score. The other indicators have been divided almost equally and account for 15%, 20%, 10% and 15% of the score respectively.

Indicator	**Weighting**
Operations	40%
Quality Management	15%
Demining Accidents	20%
Cost	10%
Reporting	15%
Total	**100%**

Please note the distribution between the percentages allocated to cost and accidents. MACCA believes value for money is more important than price. By allocating only 10% of the total score to cost MACCA ensures BSC evaluation focuses on the value - or quality - of the product, rather than the cost.

MACCA believes IPs have the primary responsibility for duty of care of their staff to ensure accidents are kept to a minimum. Statistics indicate that although accidents do occur (as in any other working environment) they are relatively few and uncommon when viewed within the context of the size and time span of the programme. Since demining began in Afghanistan in 1989, 912 deminers have been involved in accidents; of these 792 were injured and 120 died. Simple arithmetic indicates an average of 45.6 people per year. When this is viewed against the number of deminers at work in any given year the percentage of the workforce affected by accidents is very small. In 1388 7,391 people held positions in mine clearance organistations which exposed them to risk of demining accidents, of these 45 had accidents (two fatal). Thus, in 1388 only one in 3,696 people died during demining operations and only half a percent of the total workforce were injured.

Though MACCA considers these figures not unreasonable in the specific context of Afghanistan, which remains one of the most heavily mined countries in the world, it is the responsibility of MACCA to monitor and investigate each accident and work with IPs towards reducing the likelihood of an accident where possible. The weighting of 20% for the accident indicatior reflects MACCA's continued focus on this important area of operations.

MACCA purposely weighted the overall scoring shown in the table above to reinforce the requirement for good output and good quality; thus a poor score in the quality and accident section (totaling 35%) can have a significant impact on a good score for operational output (total 40%).

The indicators for MRE are as for clearance, with the exception of the demining accident section which is not applicable for MRE. The table below shows the MRE indicator set and their allocation of the total score (100%).

Indicator	Weighting
Operations	50%
Quality Management	20%
Cost	10%
Reporting	20%
Total	**100%**

The team only considered indicators which were measurable, available from IMSMA and quantitative. Quantitative indicators were believed to be important as qualitative data allows for personal preference and potential misuse of the tool. All MAPA humanitarian demining IPs were briefed on the BSC prior to its introduction.

The tool was tested in July 2009 for evaluation of IP performances for the period April – June 2009 which coincided with the first quarter of Afghan year 1388[3]. The results were shared and discussed with IPs who welcomed the initiative and were committed to support the process. Where IPs had a low score, ideas and strategies for improvement were discussed and agreed. In addition improvements to the BSC resulted from these discussions and feedback.

One of the improvements brought to the BSC after the first quarter test was to take into account the proportion of different asset types deployed by each IP. Consider an IP which has 50 manual demining teams and only 2 mechanical demining units. If the output of the mechanical units is significantly under target, the number of mechanical units *compared to* the number of manual demining units should be taken into account so that a bad score for the mechanical units does not disproportionally affect the IP's overall score for productivity, if the manual teams achieved their target. This change to the BSC made the scoring of IPs under the asset productivity section more accurate and equitable.

[3] All MACCA activities are aligned with the Afghan calendar

During the first quarter IP's performance against the reporting indicator were not evaluated as the process for collecting reporting data on the number of inaccuracies in IP reports and/or late submissions had not been established within MACCA. All IPs were given maximum score for reporting.

The slightly amended BSC was then used to evaluate activities undertaken in the second quarter of 1388 (July – September 2009); following this quarter no revisions were applied to the BSC format. However, a change was made to the process. Prior to this change MACCA staff took information from IMSMA, completed the BSC, sent the results to the IPs and requested confirmation of the overall score. In some cases this resulted in lengthy communications regarding the validity of the data entered into the BSC. Prior to completing the third quarter BSC, in order to ensure there was no difference between the data drawn from IMSMA and data held by IPs, MACCA shared IMSMA data for verification by IPs before it was entered into the BSC. This process worked well; it reduced time spent discussing variations in the dataset and led to quicker agreement on IP scores.

Following BSC completion for activities conducted in the third quarter of 1388 and the resulting discussions with IPs, two further changes were made to the BSC format. The first and most significant was that the cost indicator was removed from the scoring process. Although a cost indicator would instinctively seem to be a relevant indicator in the BSC, MACCA and IPs are not satisfied with the current method of calculating a score based on a cost per sq m when so many variable factors make comparison between IPs or against a norm impossible. MACCA will investigate alternative ways of developing a more effective cost measurement and will re-introduce if this proves successful. It should be noted that when MACCA reviews project proposals on behalf of donors an assessment of cost is made, taking into account the size of the IP, asset types and the actual hazard which will be cleared under the project. Thus it could be argued that cost has already been evaluated prior to operations commencing.

The second change concerned the accident section, which is divided into three sub sections. One of these sub-sections monitors the total number of accidents occurring in the review period, regardless of the seriousness – or consequence - of the accident. Due to the nature of demining work accidents will occur, and some of these will not have

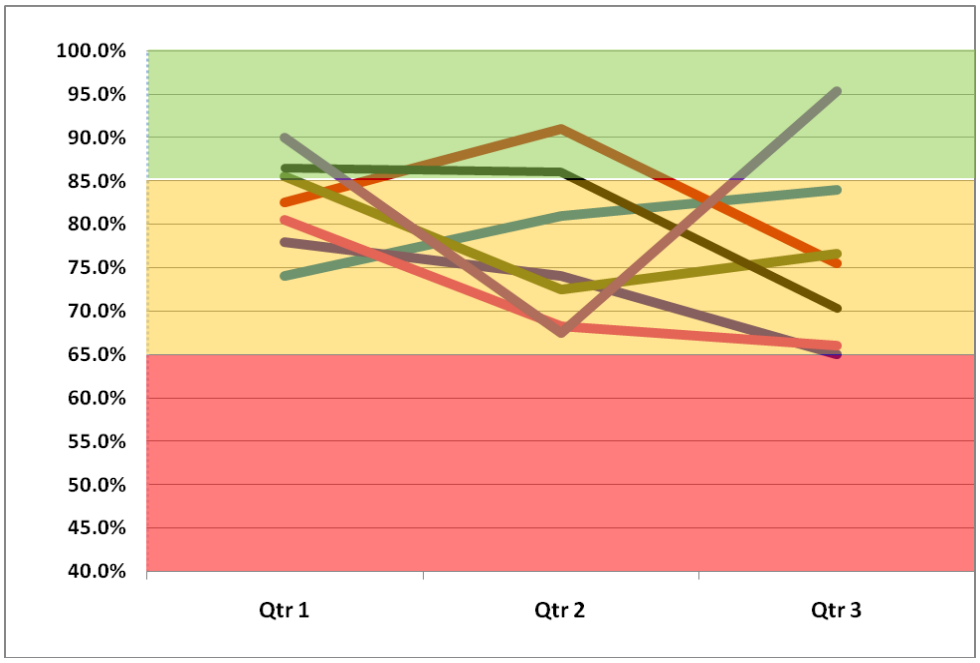
serious consequences. It was agreed to move the data set which measures accidents with non-serious outcomes into the quality management section of the BSC.

Each time the BSC format has been changed the results for all previous quarters have been recalculated according to the new format and re-circulated to IPs. MACCA expects the BSC to be a "living document" and will make amendments as and when required to ensure continual improvement and best practice.

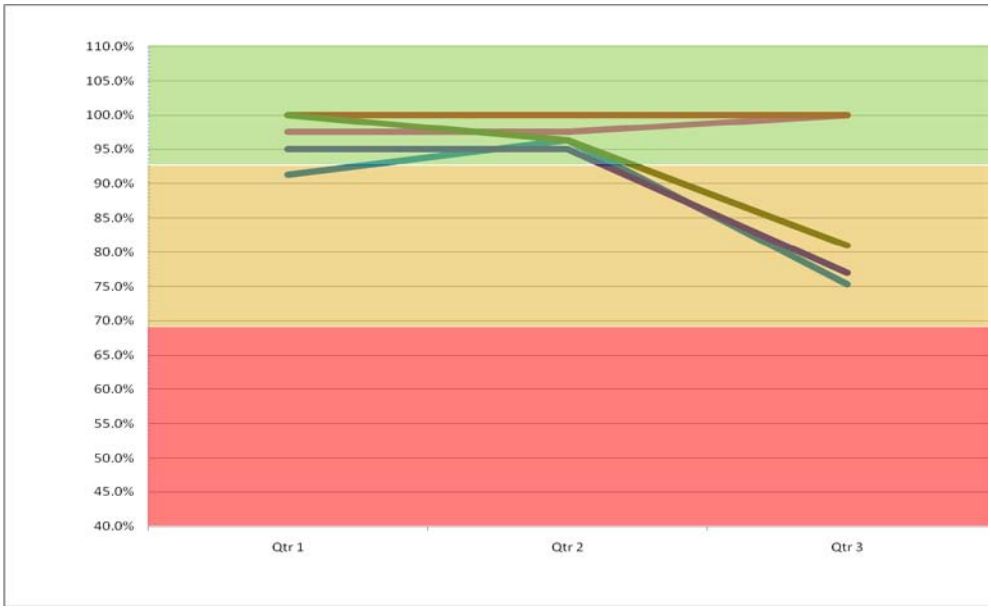
4.0 Results to date

The graphs below shows the results of the BSC applied to IPs for the first three quarters of 1388. The IPs are not identified in the graph in order to preserve anonymity.

Clearance IPs



MRE IPs



Please note the use of the "traffic light" (green, amber, red) warning system, which is often associated with balanced scorecards.

Green: BSC results between 85% and 100% are determined highly satisfactory by MACCA. A score within this range indicates an IP is executing its plan, delivering high quality services, activities are not resulting in accidents with serious consequences, and reports are being submitted on time and accurately to MACCA. A score in the green zone indicates activities should be continued.

Amber: BSC results in the range of 65% - 85% are deemed acceptable by MACCA, though follow up of the issues that are lowering the IP score should be highlighted and followed up by the IP. A score in the amber zone indicates caution is required.

Red: MACCA views a BSC result of below 65% as poor. IPs should take immediate corrective action and MACCA would anticipate that an extended period in the red zone would result in suspension of operations. Accreditation may be removed from the IP and in the case of VTF funding a re-allocation of funds to IPs demonstrating better BSC scores may result.

MACCA believes the BSC links the quality of the work of the deminer in the field or the site officer completing reports to senior managers responsible for decision making. All staff of an IP can impact on the score, and the score can impact IP accreditation or funding. The BSC completes the circle of responsibility and accountability within the IP.

5.0 BSC indicators for demining operations[4]

Operations (40%)

MACCA's primary concern is to bring the impact of landmines on affected communities in Afghanistan to an end-state; in certain areas this will require the complete removal of all hazards. Removing hazard is as important as clearing contaminated land; it is conceivable that an IP could clear a large area but not deliver removal of hazards in the process. Thus the operations indicator set is focused on both hazard removal and area of contaminated land demined.

MACCA wants IPs to present to donors credible outcome-based projects which can be monitored and evaluated against set objectives. MACCA is concerned that IPs plan well and know what their targets are in each quarter. MACCA believes projects with definable results are central to the successful removal of all hazard from Afghanistan. Therefore the baseline for evaluation is the IP plan; if the IP does not have a plan they will score zero in the first half of this indicator set. MACCA also recognizes that plans change, even within a 12 week period, thus IP progress is measured against the latest MACCA-approved quarterly plan submitted before the review period and amended at any time during the quarter. The indicator set is described below:

Number of hazards (minefield and/or battlefield) started:

This sub-indicator has been allocated 10% of the 40% given to operations. It compares the number of hazards actually started with the number planned. The closer to the target, the higher the IP scores.

[4] As of April 2010

Percentage conformity with the plan	Points
Above 95% conformity with the plan	10
Between 94% and 90% conformity with the plan	8
Between 89% and 80% conformity with the plan	6
Between 79% and 70% conformity with the plan	4
Between 69% and 60% conformity with the plan	2
Between 59% and 50% conformity with the plan	1
Less than 49% conformity with the plan (and/or no plan submission)	0

Number of hazards (minefield and/or battlefield) completed:

As in the sub-indicator above, the weight allocated for this sub-indicator is 10% out of 40%. It measures the achievement of the IP in terms of the number of hazards actually completed versus the number of hazards planned for completion during the review period. The scoring scale is as for the indicator above.

Both these sub-indicators provide MACCA with information concerning the IP's planning ability and answers the question "did they do what they said they would?". It also gives an indication of how frequently an IP changes its plan.

Achieving a good score in these data sets motivates IPs to be as precise as possible in their planning process. It encourages IPs to conduct reconnaissance of demining worksites before they prepare operational plans in order to objectively calculate clearance targets based on the specifics of each individual hazard. This sub-indicator also makes clear to the IP that area cleared alone is not a measure of success but a combination of area cleared and number of hazards completed is indicative of an IPs achievement.

Asset productivity:

This sub-indicator has been allocated a weight of 20% out of 40%. It indicates to what extent IPs have effectively utilized demining assets by measuring the achievement(s) of each demining asset as recorded in IMSMA against expected outputs. The baseline against which IP productivity is measured is clearance rates as shown in the most recently submitted and approved operational plan.

Area cleared is used as the measuring unit for areas cleared by manual deminers (including Battle Area Clearance), Mine Detection Dogs, and areas prepared or verified by mechanical means. Cubic metres are used to measure the mass of soil mechanically processed during demining operations.

Measuring IP performance against this indicator requires more caution than those mentioned above. In this case, mitigating factors such as the number of operational days delivered and those lost due to weather or security are taken into account, as are the team size, any mobilization and/or training periods, and in the case of mechanical assets the proportion of time they are utilized for differing roles such as ground preparation, ground processing and ground verification. Ignoring any of these factors could result in a score that does not reflect the reality of the situation on the ground.

Over-achievement in this indicator set does not result in a score above 40%. MACCA does not want IPs to set lower targets knowing they can be overachieved in order to score highly in this indicator set and possibly offset lower scores in the indicators measuring quality, accidents, and reporting. Furthermore, it could be argued that significant over- achievement is an indicator of inaccurate planning.

Percentage conformity with expected outputs	Points
Above 95% conformity with expected outputs	10
Between 85% and 94% conformity with expected outputs	9
Between 75% and 84% conformity with expected outputs	8

Between 65% and 74% conformity with expected outputs	7
Between 55% and 64% conformity with expected outputs	6
Between 50% and 54% conformity with expected outputs	5
Less than 49% conformity with expected outputs (and/or no plan submission)	0

Quality Management (15%)

This indicator measures the quality of IP performance; it indicates to IPs that they are not only expected to deliver good performance in terms of their productivity but they are also responsible for the quality of their performance.

MACCA conducts quality monitoring at field level throughout the programme on a continual basis. The vast majority of quality checks reveal IPs are delivering work of a quality which is in line with AMAS. For example, out of the 380 quality checks MACCA conducted in March 2010, 355 resulted in conformity reports, 19 in minor non-conformity reports and only six (1.5% of the total) in major non-conformity reports.

In order to keep the BSC simple this indicator set focuses on major non-conformities only. A major non-conformity can generally be defined as a "breach" of AMAS that is considered to be life threatening, as below;

- Missing mine or ERW;
- Safety distances not being adhered to;
- Ambulance or evacuation vehicle not available on site or not AMAS compliant;
- Equipment required for casualty stabilization/evacuation not available on site;
- CASEVAC procedures not being practiced or recorded;
- PPE not available on site, not worn correctly in accordance with AMAS or not serviceable;
- Any significant deviation from AMAS that can potentially impact on safety and/or can potentially lead to a demining incident/accident (e.g. marking/clearance procedures, demolition procedures);

- No means of communication on clearance site;
- Poor command/control by the command element as long as it may potentially impact on safety and/or potentially lead to a demining incident/accident;
- Carelessness of deminer as long as it may potentially impact on safety and/or potentially lead to a demining incident/accident (e.g. missed signal);

The following, although not life-threatening in themselves, could lead to life-threatening situations and are thus considered major non-conformities;

- Repeated failure to apply accredited management systems;
- Refusal to allow monitoring or inspection to take place;
- Repeated interference with monitoring or inspections;
- Premature release of cleared land in breach of contractual obligations;
- Application of processes known to place staff or the local population at unacceptable risk

Of the 15% of the score which is allocated to Quality Management, 5% is apportioned to the number of major non-conformities recorded during the review period and 10% to the number of repeated major non-conformities reported during the review period.

The information required to complete this indicator is obtained from the Quality Management database which is a MACCA designed add-on to IMSMA.

Number of major non-conformities:

An IP with no reported major non-conformities scores full marks (10), one major non-conformity scores 9 and two major non-conformities score 8. Thereafter the IP loses half a point for every major non-conformity recorded up to 18 when the IP scores 0 (as can be seen in the following table). The rationale behind having such a large spread of scores was to make sure that an IP who had a lot of major non-conformities (e.g. 18) would score lower than an IP which had a smaller number (e.g. 5). If a zero score was reached at a cut off of five major non-conformities for example then an IP with six major non-conformities would score the same as an IP with 16 major non-conformities, which MACCA did not deem equitable.

Number of reported major non-conformities	Points
0 reported major non-conformities	10
1 reported major non-conformity	9
2 reported major non-conformities	8
3 reported major non-conformities	7.5
4 reported major non-conformities	7
5 reported major non-conformities	6.5
6 reported major non-conformities	6
7 reported major non-conformities	5.5
8 reported major non-conformities	5
9 reported major non-conformities	4.5
10 reported major non-conformities	4
11 reported major non-conformities	3.5
12 reported major non-conformities	3
13 reported major non-conformities	2.5
14 reported major non-conformities	2
15 reported major non-conformities	1.5
16 reported major non-conformities	1
17 reported major non-conformities	0.5
18 reported major non-conformities	0

Please note, as mentioned above, demining accidents which do not result in injury to the deminer are recorded as a major non-conformity.

Number of repeated major non-conformities:

This sub-set has been given increased weighting (10%) as MACCA believes repeated major non-conformities indicate an IP is not demonstrating a willingness to improve the quality of operations. Thus the scoring indicates a low tolerance for repeated error; an IP with no repeated major non-conformities scores 10 while an IP with one or more repeated major non-conformities scores 0.

Demining accidents and missed mines (20%)

The indicator is divided into two sub-sets each with an equal weighting of 10%.

Number of demining accidents with preventable injuries:

MACCA takes a serious view of demining accidents which result in death or preventable injuries to the deminer. MACCA recognizes that accidents will occur in the demining sector, as with any other industrial process, but believes accidents which have preventable injuries demonstrate weakness and negligence in management systems and processes which are unacceptable. This is reflected in the scoring; an IP with no recorded accidents resulting in preventable injuries will score 10 and an IP with one or more recorded accidents resulting in preventable injuries will score 0.

Number of missed mines:

It is an unfortunate reality that in the process of demining mines will be missed. Fortunately the frequency and likelihood of such an event is very low. Since demining began in 1989, the cumulative number of mines found totals 518,529. During the same period, 112 mines have been found on land previously cleared; statistically for every mine missed, 4,630 mines are found. Though it is an exceptionally unusual outcome, both MACCA and IPs are striving to reduce the likelihood even further.

The rationale for including a missed mine section in the accident indicator of the BSC results from the fact that most missed mines are identified following accidents. Data will only be entered into this section if the resultant inquiry into the accident finds the IP fully responsible and/or negligent in following AMAS. It should be noted that a missed mine

may be identified many months after clearance took place; the missed mine will be recorded in the BSC relevant to the quarter in which it is identified, rather than amending the BSC for the quarter in which clearance in the area of the missed mine took place.

The same scoring approach as above is applied to this subset; no missed mines will result in full marks, one or more missed mines will result in a score of 0.

Financial (10%)

As mentioned above, inclusion of a score related to cost has proved challenging. There are numerous pitfalls and flaws in mathematical calculation of this indicator.

The initial idea was to measure a cost per square metre; the total area cleared in the quarter was to be divided by the total expenditure by the IP in the same quarter. This in itself is problematic; an IP could make significant expenditure in one quarter that would be of benefit in later quarters (such as procurement of equipment) but which would show demining in one quarter to be more expensive than in the following quarter.

Furthermore, the BSC measures performance of all IP assets, and all IPs regardless of their funding source. However MACCA only has access to detailed budgetary information for VTF funded teams. Thus it was agreed a cost versus output measurement could only be applied to VTF-funded teams. This immediately creates inequality between IPs who benefit from VTF funding at different levels.

Even if an accurate figure of cost per sq m could be worked out, against what would it be measured? As all mine action practitioners are aware, a standard “cost per sq m” is a fallacy.

MACCA has considered alternative cost efficiency measurements but to date has not identified a solution which is sufficiently robust. Currently all IPs are allocated the full score of 10 in this indicator set, which will either be removed or amended.

MACCA continues to seek an equitable cost measurement and welcomes input from MAPA stakeholders.

Reporting (15%)

The decision to include reporting as an indicator set is due to the responsibility MACCA has to the Government of Afghanistan and donors to maintain accurate and up to date information on the mine action sector in IMSMA, the nationally owned database. Without timely, high quality reporting from IPs, MACCA cannot deliver on this responsibility. Furthermore MACCA is responsible for coordination of mine action, for which information and cooperation from IPs is critical.

In order to capture these requirements four types of reports are considered in this section; weekly/monthly progress reports, minefield/battlefield completion reports, IP submission of quarterly operational plans, and IP response to demining investigation reports.

This indicator set is been divided into two subsets each with equal weighting of 7.5%.

Number of errors in submitted reports:

The numbers of errors found in progress and completion reports are recorded by the Area Mine Action Centres (AMACs) receiving IP reports in the field and by MACCA IMSMA staff during the data entry process. Scoring as in the table below.

Number of errors in submitted reports	Points
2 or less errors in submitted reports	10
Between 3 and 9 errors in submitted reports	5
More than 9 errors in submitted reports	0

Late reporting:

MACCA staff in Kabul and AMACs monitor and record the timeliness of IP reporting. Scoring as in the table below.

Number of late reports	Points
2 or less late reports	10
Between 3 and 9 late reports	5
More than 9 late reports	0

6.0 BSC indicators for MRE[5]

Four indicators have been set for the MRE BSC; operations, quality management, cost and reporting.

Operations (50%)

This indicator has been allocated a total of 50% out of the total score of 100%. All IPs are measured against their planned outputs in this section. However the breadth of activities being conducted by MRE IPs is considerable, indeed not one MRE IP delivers the same kind of service. Some deliver MRE in encashment centres, some broadcast radio programmes, some produce mini-circus shows, etc. Furthermore, not all operators conduct the same activities throughout the year. Thus the 50% allocation is spread across the number of activities conducted in any given quarter relative to the plan. As with the clearance operators, points are allocated as below:

[5] As of April 2010

Percentage conformity with the plan	Points
Above 95% conformity with the plan	10
Between 94% and 90% conformity with the plan	8
Between 89% and 80% conformity with the plan	6
Between 79% and 70% conformity with the plan	4
Between 69% and 60% conformity with the plan	2
Between 59% and 50% conformity with the plan	1
Less than 49% conformity with the plan (and/or no plan submission)	0

Quality Management (20%)

This indicator has been allocated a weight of 20% out of the total score of 100% and has been divided into two sub-indicators.

Number of major non-conformities:

This sub-indicator has been allocated 7.5% of the 20% given to quality management. Major non-conformities for MRE are:

- Handling mines and/or ERW;
- Conducting MRE sessions close to minefields;
- Not using standard MRE guidelines/equipment/materials;
- Absence from the site when MRE is planned;
- Undertaking “non-safe” behavior in contaminated areas
- Delivering incorrect messages which could put lives at risk

The scoring process is the same as for clearance operators.

Number of reported major non-conformities	Points
0 reported major non-conformities	10
1 reported major non-conformity	9
2 reported major non-conformities	8
3 reported major non-conformities	7.5
4 reported major non-conformities	7
5 reported major non-conformities	6.5
6 reported major non-conformities	6
7 reported major non-conformities	5.5
8 reported major non-conformities	5
9 reported major non-conformities	4.5
10 reported major non-conformities	4
11 reported major non-conformities	3.5
12 reported major non-conformities	3
13 reported major non-conformities	2.5
14 reported major non-conformities	2
15 reported major non-conformities	1.5
16 reported major non-conformities	1
17 reported major non-conformities	0.5
18 reported major non-conformities	0

Number of repeated major non-conformities:

This sub-indicator has been allocated 12.5% of the 20% given to quality management. As in the case of the clearance operators, the BSC penalizes those IPs where repeated major non-conformities are observed; an IP with no repeated major non-conformities scores 10 while an IP with one or more repeated major non-conformities scores 0.

Cost (10%)

As in the case for clearance, measurement of cost has been suspended.

Reporting (20%)

The weight allocated to this indicator is 20% out of the total 100%. As with the clearance BSC the score is divided equally between two sub-indicators measuring accuracy and timeliness of reporting. Points are calculated as below.

Number of errors in submitted reports	Points
2 or less errors in submitted reports	10
Between 3 and 9 errors in submitted reports	5
More than 9 errors in submitted reports	0

Number of late reports	Points
2 or less late reports	10
Between 3 and 9 late reports	5
More than 9 late reports	0

7.0 Conclusion

MACCA's introduction of the BSC is proving a valuable tool for monitoring and evaluating IP performance. Since its introduction, coordination with IPs has improved and IPs have commented on its value in terms of highlighting areas of weakness and identifying areas for improvement. The BSC is a "living" document under constant revision and improvement by MACCA, who welcomes feedback from interested stakeholders.

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