

# **INDICATORS TO ASSESS INTEGRATED DEFENSE RESOURCES MANAGEMENT IMPACT ON ARMED FORCES INTERNATIONAL MISSIONS**

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## **Abstract**

The operating environments that have been developed after a wide-ranging examination of global, environmental, sociological, technological, and military dynamics will influence the course of future conflict and the strategy of Romanian military forces management, as well. By examining a number of critical trends influencing potential future operational environments and associated threats, this paper may serve as a common frame of reference and guide for civilian and military leaders responsible for the capabilities-based integrated resource management transformation process for the assessment of the results by using indicators. In this respect are recommended several indicators grouped on operational activities and financial allocation criteria.

## **1. Introduction**

Integrated defense resource management in Romania applies innovation and change to the ideas and capabilities that animate military forces to ensure that they are adapted to the world in which they operate. The process of

innovation and change relies on an ability to foresee and anticipate the key factors that shape the world and the challenges which are intrinsic to these factors. Another aspect is to assess the results of actions using the most appropriate indicator in order to make decisions to quickly adapt in the face of surprise.

The three main domains to be assessed could be considered to be: (1) intelligence, (2) command and control and (3) precision force [1].

- *Intelligence, including surveillance and reconnaissance (ISR)*

It involves sensor and reporting technologies associated with intelligence collection, surveillance, and reconnaissance, as well as the new means by which we are able to keep track of what our own forces are doing. Because of advances in this area, the capacity to maintain real-time is expended, all weather awareness of what is occurring in and above a wide geographical area.

- *Command, control, communications, computer applications, and intelligence processing (CCCCAIP)*

It involves the technologies and techniques by which the awareness of what is occurring in a broad geographical arena into an *understanding* of what is taking place there are translated, and communication that leads to understanding quickly, surely, and accurately to combat forces. It also implies processes of identification, mission assignment and force allocation take place. In other words, it is the realm in which the understanding of a battlespace to missions and assignments designed to alter, control, and dominate that battlespace are converted.

- *Precision force (PF)*

It is about to be precision-guided weaponry, and it certainly includes this category of weapons. It is a broader concept, however, that emphasizes speed, accuracy, and precision in the use of force and therefore encompasses all our forces, the infantry as well as strategic bombers, and includes things like

information warfare. This is the area in which the knowledge generated from the overlap of the first two areas leads to action.

It is important not to miss the power generated by the interaction of ISR, *CCCCAIP* and PF, because the developments in each of the areas as discrete and separate are tended to be seen. It is because “multidisciplinary technologies across dimensions will have a revolutionary impact on how we live by 2025, but will accentuate the disparity between “haves” and “have-nots.” Research requires consistent effort and resources. It cannot be turned on and off effectively or in a timely manner” [5].

## **2. International missions and their trends**

The international environment is composed of a large number of variables that are relevant to military operations and some which are not, but having the potential to cause conflict and war and define potential to influence the course of human events in the future. Trends may be subject to shocks that accelerate or wholly change the direction of the military challenges.

As NATO member, Romania has its own duty in the wider global security environment. “The joint force will also encounter a number of new and emerging challenges, the outlines of which are just becoming clear from our vantage in 2007. These include the development by states of anti-access strategies and capabilities, the potential emergence of new terrorist ideologies, and groups or states bent on the disruption of global trade and finance. The future joint force will likely be confronted by persistent cyber-conflict and the potential disruption of global information networks. The proliferation of weapons of mass destruction, failing nuclear and energy states or mega-cities will challenge the joint force to impose levels of order on highly disordered situations. A final emerging challenge is the potential growth and development of a global anti-American coalition of opportunistic states, transnational terrorist groups or supernational organizations” [5].

The nature of today's global security environment makes coalitions and interagency partnerships even more important than before and needs to account on multinational partnerships. Now, countries think about the entire spectrum of conflict vice strictly combat operations, and it has become vital to develop relationships by bringing other elements of national power [3].

### **3. Recommended indicators**

#### **1.1. Operational indicators**

The operational indicators might be seen from the four following dimensions: (1) human geography, (2) governance and legitimacy, (3) globalization of economics and resources, and (4) science, technology, and engineering [5].

##### ***Human geography indicators***

These indicators need to emphasize the quantity, characteristics, and distribution of human military and civil populations, such as:

- The number of people dislocated for international missions;
- The characteristics of people dislocated for international missions: age, gender, education, profession, health, culture, urbanization, faith, and ethnicity;
- The structure of people dislocated for international missions: military and civil.

The impact of the intercultural encounters is also important to be assessed because it is not always positive. "In very underdeveloped countries with a large, unemployed youth bulge, Western cultural influence results in disaffection and resentment—both of which fuel crime, terrorism, and drug usage. External cultural infusion leads to a weakening of cultural cohesiveness, producing a backlash of negative attitudes and actions" [5].

##### ***Governance and legitimacy***

It relates to the nature of international actors in the international environment, including who owns or can make use of natural and human resources and who can command loyalty and claim legitimacy to act throughout the world. “Today, there is a wide and diverse array of actors capable of exercising power in some way on the international stage, and the traditional notion of the sovereignty and primacy of the nation-state is under challenge. Some states are delegating parts of their sovereignty upwards to international and supranational organizations, while aspects of sovereignty are draining away downward to sub national groups and identity of sovereignty of states both upward and downward. (...) For example in Europe, states such as Belarus and Russia may join together to form a larger state or union. Regional supranational organizations represent a pooling of sovereignty to achieve greater collective power. As members, nations have the potential to become increasingly powerful, capable of concerted diplomatic, information, military, and economic actions. These organizations can constrain or facilitate America’s ability to act or react.” (...) The globalization of information and trade will complicate the perception of legitimacy as populations become increasingly aware of their status relative to other similar countries. Some governments will lose legitimacy and fail based on loss of public confidence and/or dissatisfaction with status as “have-nots.” [5]

In this respect the main indicators might be:

- The number of actors that are capable to lead internationally;
- The characteristics of actors that are capable to lead internationally.

### ***Globalization of economics and resources***

This dimension referring to globalization economics and resources needs to take into consideration the climate change driven by global warming will have wide-ranging economic and resource impacts, and examples of the impacts are:

- “The economic impacts will range from those associated with resource availability, to increased health care costs, and the potential failure of the insurance industry, the world's largest economic sector” [2].
- “Climate change will have multiple effects upon food production. Crop ecologists estimate that for every 1.8°F rise in temperature above historical norms, grain production will drop 10 percent. Food production, cultivation and animal husbandry patterns will be affected and some regions will be unable to grow current food staples, such as rice and green vegetables; fish stocks will diminish or migrate” [6].

The challenges in resources availability are going to influence the energy demands that will grow as a result of increased heating, cooling, industrial, and transportation needs and carbon dioxide emissions, as well. “The current world economy is characterized by the notion of *globalization*, which denotes the ability to trade, conduct commerce, and move goods and services across international boundaries. Globalization has brought with it a degree of prosperity that has never been seen before. It also brings with it economic dislocation as centers of high-cost production are closed and moved to areas with lower labor and production costs. Because globalization results in both “winners” and “losers,” the degree to which economic globalization will continue is unclear” [5].

Having in view the above mentioned issues the main indicators might be:

- The weight in GDP of national resources used in international missions;
- The structure of national resources used in international missions;
- The weight in GDP of imported resources used in international missions.

***Science, technology and engineering***

“The key strategic implications of science, technology and engineering (ST&E) will be shaped by and dependent on its global availability. (...) Thus, military scientists and researchers will have to have pervasive, sustained, and trusting relationships with the commercial sector, at home and abroad” [5].

In this respect the recommended indicators are:

- The number of registered national inventions and innovations to be applied projects used in international missions;
- The weight in GDP of national science, technology, and engineering applied projects used in international missions;
- The weight in GDP of imported equipment and know-how used in international missions.

## **1.2. Financial indicators**

The main financial indicators needed to be used to assess the international missions are related to the Romanian Ministry of Defense and might be: (1) Overseas Contingency Operations Transfer Funds, (2) Operation and maintenance and (3) Overseas Humanitarian, Disaster, and Civic Aid [4].

### ***Overseas contingency operations transfer funds***

The Overseas Contingency Operations Transfer Fund allows the operational requirements meet in support of contingency operations without disrupting approved program execution or force readiness. This established fund, as a “no year” transfer account, provides added flexibility by allowing for the transfer of funds to the international missions based on actual experience as events unfold during the year and are adjusted to the dynamic changes in operational requirements and better allocate funds based on more current and up-to-date information.

Some other indicators are related to the operational programs fields of action such as [4]:

- The Air Operations program finances the cost to maintain aircraft and to train pilots to achieve and maintain flying proficiency in support of the national military strategy. The portion of the Air Operation program is commonly referred to as the “flying hour program”, based on pilot training syllabuses, which are used to estimate the number of training hours needed to achieve and to maintain aircrew skill levels. The major program changes are primarily due to increases in the cost of the flying hour program for consumables and depot level repairables due to aging aircraft.
- The Land Forces program includes funding to train and sustain active Army and Marine Corps ground combat forces. The Army’s program includes units assigned to heavy, airborne, air assault and light division; corps combat units. The Marine Corp program includes divisions, service support groups, helicopter groups, and light anti-aircraft missile battalions that constitute the Marine air-ground team and Marine security forces.
- The Ship Operations programs include plan operating rates as well as depot maintenance and support.

Other indicators might stress the structure of costs in percentage out of total contingency costs, as for example: Afghanistan, Kosovo, Iraq.

### ***Operation and maintenance***

The main indicators are going to show the costs and budget allocations available for: maintenance; transportation; training and education; recruiting, advertising, and examining; base operations support and command, control, communications and intelligence.

“The Mobilization program provides for airlift and sealift capability to deploy combat forces and materiel in contingencies by providing funding to maintain an inventory of immediately available supplies and equipment to



sustain the forces as outlined in the National Military Strategy” [4] as the followings:

- The Depot Maintenance allocation finances the overhaul, repair, and maintenance of aircraft, missiles, ships, submarines, combat vehicles and other equipment costs. Depot maintenance efforts are performed at both public and private (contractor) facilities. These efforts provide maintenance necessary to sustain the operational readiness of combat forces, to ensure the safe and efficient operation of weapon systems, and to renovate assets that are being transferred from active forces to the reserve components.
- The transportation allocation provides financial resources for the movement of materiel between contractors’ plants, military logistics centers, and field activities throughout the world.
- The training and education allocation finances the operation of training centers, and scholarship programs, which are necessary to acquire and maintain a trained force of personnel able to effectively support military units, ships, aircraft, and installed weapon systems, and are resources to finance base support activities and facility sustainment, as well.
- The recruiting, advertising, and examining allocation is to support the recruiting commands and stations for international missions.
- The base operations support fund provides the resources to operate the bases, installations, camps, posts, and stations to sustain mission capability, ensure quality-of-life, and enhance work force productivity, and fund personnel and infrastructure support.
- The command, control, communications and intelligence allocation finances base level and worldwide communication networks for voice, data, and imagery traffic to ensure responsive support to the forces.

### ***Overseas humanitarian, disaster, and civic aid***

The overseas humanitarian, disaster and civic aid budget allocation includes three segments: the Humanitarian Demining Program, the Humanitarian Assistance Program, and Foreign Disaster Relief Assistance [4]. In broad terms, these finance resources support the national military forces in meeting two key requirements:

- to maintain a robust international presence aimed at contributing to the international security environment in a manner that deters would-be aggressors, strengthens friends and allies, and promotes peace and stability in regions of tension;
- to respond effectively when called upon to assist the victims of storms, earthquakes, and other natural or manmade disasters.

These actions enhance readiness across a number of operational areas including: command, control, communication and intelligence; civil affairs; and logistical support.

## **4. Conclusions**

A system of indicators are useful to define the core competencies which stem from the speed, global range, precision, flexibility, unparalleled access, and awareness afforded by the military forces that contribute internationally to the global safety and security.

The above recommended indicators, resulted from the research and mentioned references, are seen as being a small contribution to the Romanian system of indicators creation and this paper is subject of debates and completion.

## REFERENCES

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