

The Contribution of Water for Achieving the MDGs

- The Millennium Development Goals (MDGs) are the UN-established targets for international development.
- Improvement of water supply and sanitation will help to achieve the MDGs.

The MDGs and current situation

MDG 1 Eradicate extreme poverty and hunger

Proportion of people in poverty 21%(2001)
Proportion of people in hunger 17%(2001)

MDG 2 Achieve universal primary education

School enrolment ratio 83%(2001/02)

MDG 3 Promote gender equality and empower women

Girls' school enrolment ratios in relation to boys'
Primary 92% (2001/02)
Junior&High 89% (2001/02)

MDG 4 Reduce child mortality

Under-five mortality rate 8.8% (2003)

The MDGs and current situation

- MDG 5 Improve maternal health
- MDG 6 Combat HIV/AIDS, malaria and other diseases
- MDG 7 Ensure environmental sustainability
- MDG 8 Develop a Global Partnership for Development

Number of deaths at birth
450 in 10 million (2000)

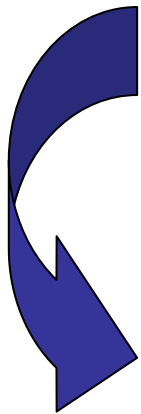
HIV : 4.9 million
Malaria : 350 ~ 500 million
(2004)

Drinking water coverage
77%(1990), 83%(2002)
Sanitation coverage
49%(1990), 58%(2002)

Unsustainable growth
and development
of developing countries

How to assess the contribution of water and sanitation

The case of MDG2 - Problem: Insufficient diffusion of primary schooling



Causes for the problem?

- No chance to be educated because of illness or injury
- No time to go to school
- No chance to be educated

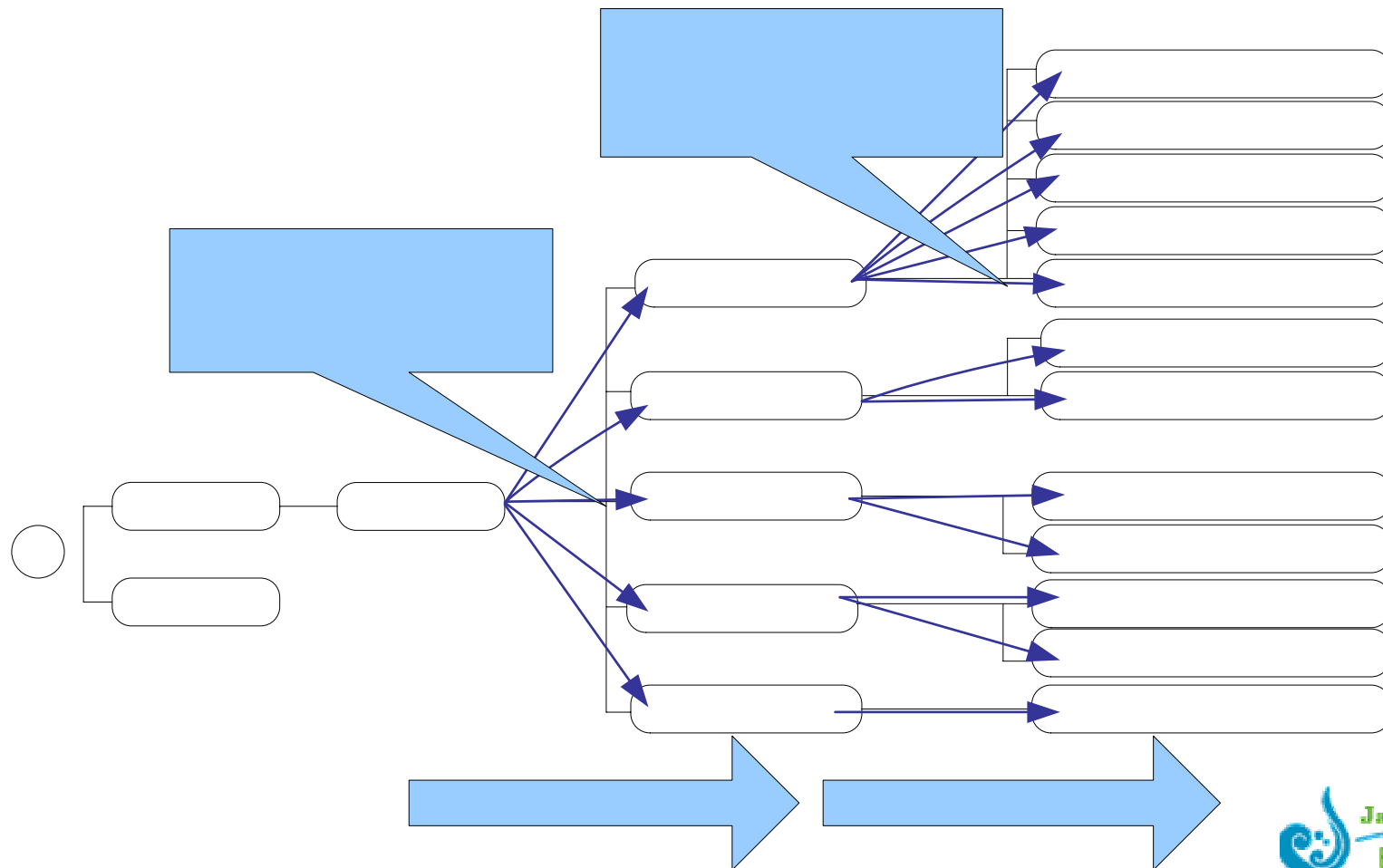
Causes for the causes?

For the cause , the following two causes can be suggested.

1. Disease (HIV, Diarrhea, Malaria, Malnutrition, etc.)
2. Injury

How to assess the contribution of water and sanitation

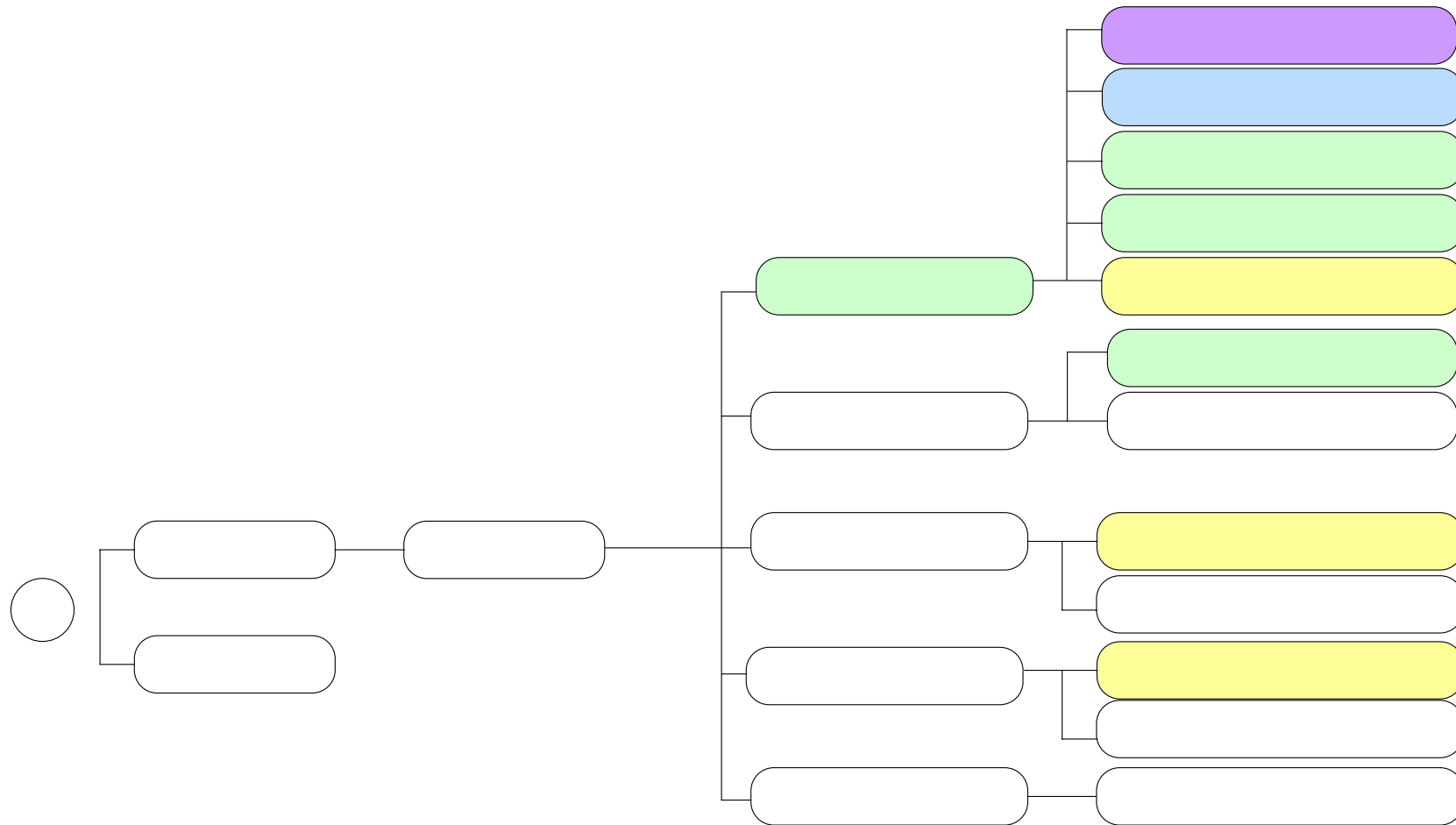
- The case of Disease Diarrhea



The main pillars for improving water and sanitation

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Categorization of items related to water and sanitation



Categorize each item related to water and sanitation into one of the four pillars respectively.

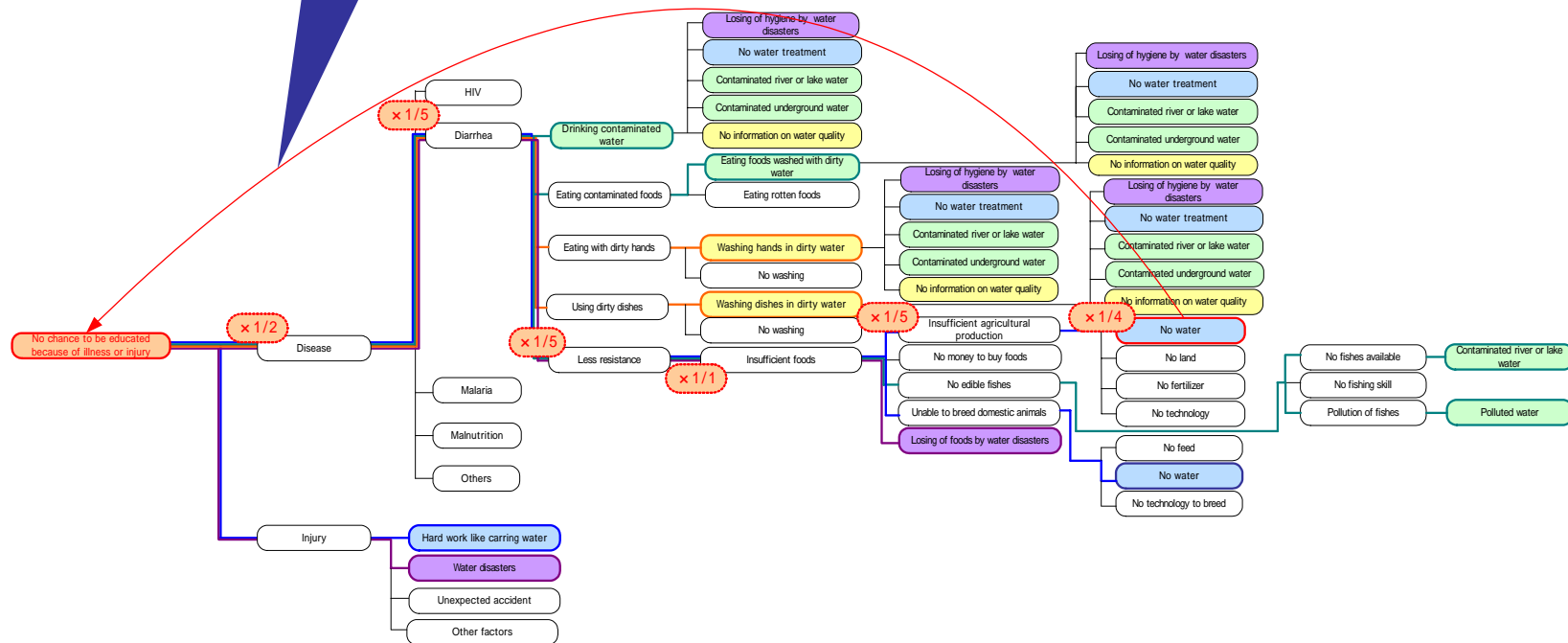
How to calculate the contribution of water and sanitation

- Calculate how much contribution can be made by each item which represents a cause for the direct causes for the MDGs (ex. The direct causes for the MDG2 are; No chance to be educated because of illness or injury; No time to go to school; No chance to be educated).
- In calculation, the items are assigned with no weight parameters, assuming that they all have same importance. For example, where there are three causes for an item, each is considered as having one-third of importance indifferently.

How to calculate the contribution of water and sanitation

The case of contribution for MDG2 made by Improvement of water supply

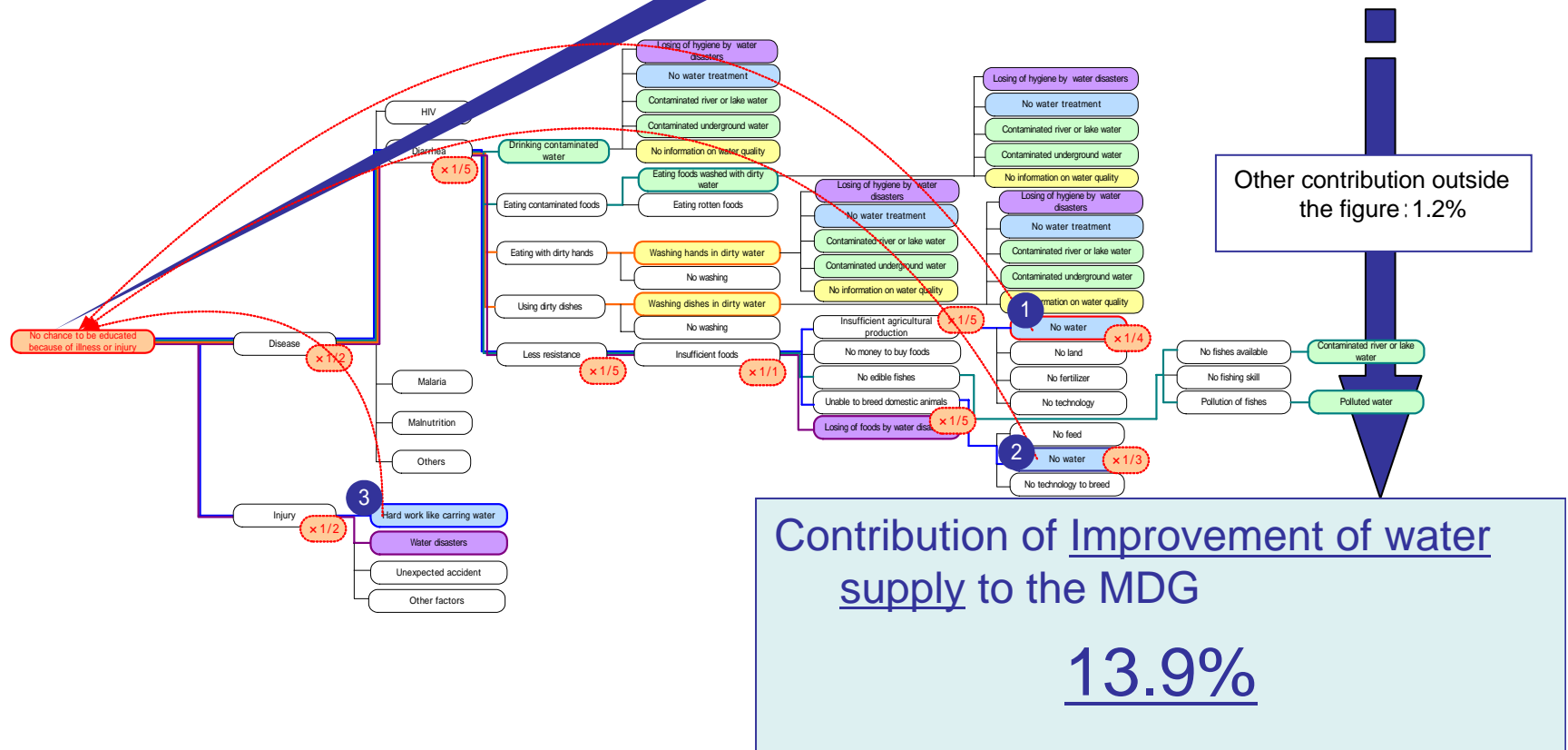
Contribution
 $= 1/2 \times 1/5 \times 1/5 \times 1/1 \times 1/5 \times 1/4$
 $= 1/1000 \quad 0.1\%$



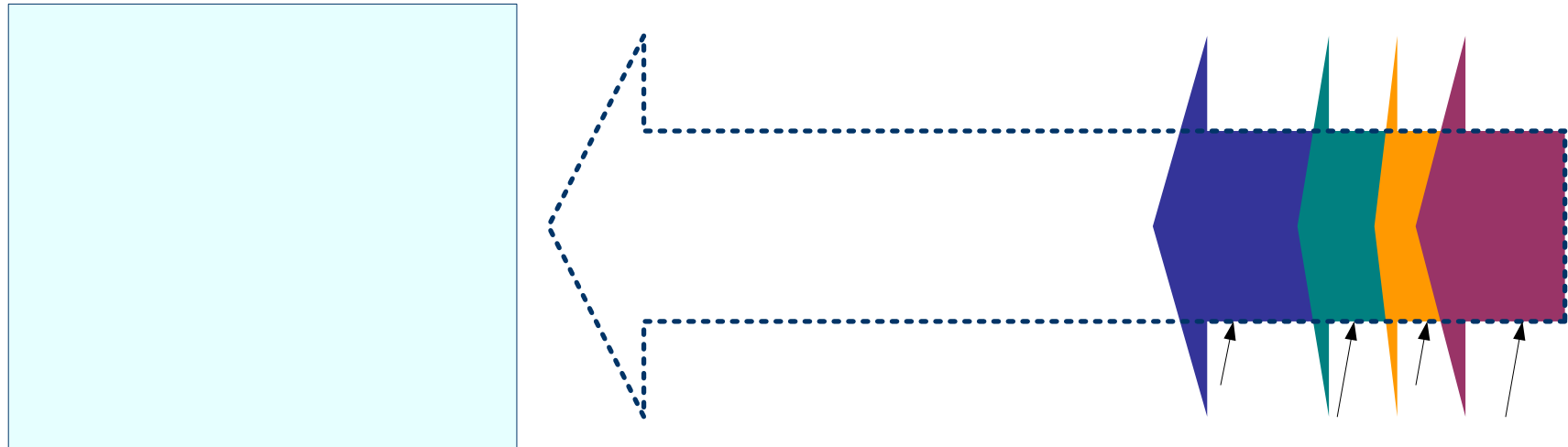
Calculate the proportion of an item to total.

How to calculate the contribution of water and sanitation

$$\begin{array}{l}
 1/2 \times 1/5 \times 1/5 \times 1/1 \times 1/5 \times 1/4 = 1/1000 \quad 0.1\% \\
 1/2 \times 1/5 \times 1/5 \times 1/1 \times 1/5 \times 1/3 = 1/750 \quad 0.13\% \\
 1/2 \times 1/4 = 1/8 \quad 12.5\%
 \end{array}
 \left. \vphantom{\begin{array}{l} 1/2 \times 1/5 \times 1/5 \times 1/1 \times 1/5 \times 1/4 \\ 1/2 \times 1/5 \times 1/5 \times 1/1 \times 1/5 \times 1/3 \\ 1/2 \times 1/4 = 1/8 \quad 12.5\% \end{array}} \right\} \text{total } \underline{12.73\%}$$



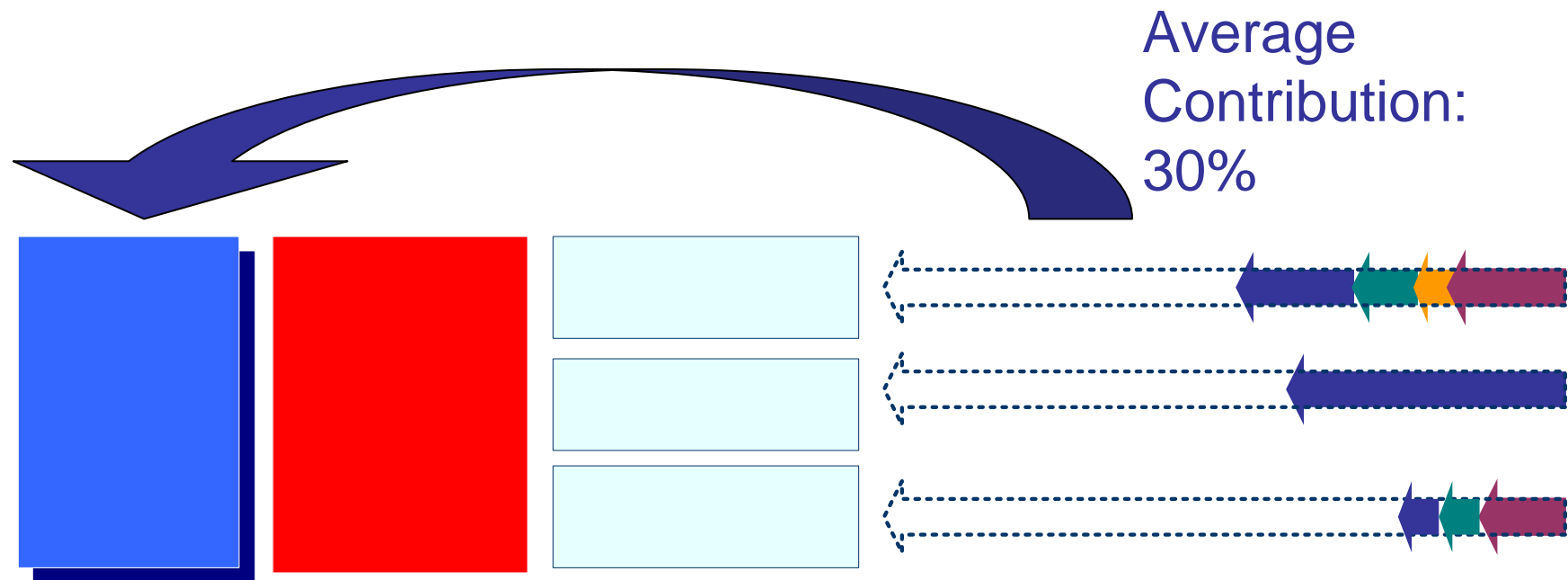
How to calculate the contribution of water and sanitation



Calculate the other three pillars in the same way as the Improvement of water supply.

By totaling all the results, the contribution of water and sanitation is defined as 38%.

How to calculate the contribution of water and sanitation



Calculate the contribution of water and sanitation in the same way for all items (ex. 3 items for the MDG2) and for each MDG. Eventually, the average of all the results shall be defined as the overall contribution of water and sanitation for achieving the MDG2.

The contribution of water and sanitation to the MDGs (1/2)

MDG 1 Eradicate extreme poverty and hunger

Contribution
approx. 30%

MDG 2 Achieve universal primary education

Contribution
approx. 30%

MDG 3 Promote gender equality and empower women

Contribution
approx. 20%

MDG 4 Reduce child mortality

Contribution
approx. 30%

The contribution of water and sanitation to the MDGs (2/2)

MDG 5 Improve maternal health

Contribution
approx. **30%**

MDG 6 Combat HIV/AIDS, malaria and other diseases

Contribution
approx. **25%**

MDG 7 Ensure environmental sustainability

Contribution
approx. **50%**

MDG 8 Develop a Global Partnership for Development

(No estimation)