

ASSIGNMENT MODULE 6

Daniele Cervellera

Student of WASH post-graduate diploma (Course Code: PGD002) in

The Strategia Netherlands

Admission number: SN031/06/2018

1. Explain four examples of potential benefits and four examples of possible drawbacks from public–private partnerships in urban sanitation and waste management.

The public-private partnership (PPP) can be defined as public services which are funded and operated through a partnership between national, regional or local government and one or more private sector companies. The private sector businesses are pushed to deliver a good service by the potential profits they can have and the public-sector offices are relieved of the responsibility to run the service.

In order to achieve a good level in urban sanitation and waste management there is the chance to create a public-private partnership instead of have a management that is fully under control of the public sector.

This option has some potential benefits and some drawbacks. One opinion that support the creation of these partnerships is that at the end the private sector can provide better services and at lower prices than what can do the public sector. Looking at the details of this idea, there is the opportunity that the companies have to access capital and buy raw materials in bulk: generally, the enterprises can follow all strategies that contribute to minimize the expenditures and consequently reduce the cost that will be sold in the market.

The fact that the private sector seeks for profit pushes it to work hard in order to specialize in the field of work (sanitation and waste management in this case); the limited number of products makes them specialize in their production.

Lastly, the financial autonomy of the companies helps them a lot in the management of the business and the competition of the market encourages them to perform well and get profit.

Looking at the other side of the coin there are risks in the public-private partnership that has to be considered at the moment of the choice of the strategy and when the PPP is going on:

1. If the desire for profit is too high, there is the risk of substandard products offered in the market

2. the companies are ready to withdraw from business in case their profit is not enough or at the level that they were expecting, causing a severe damage to the served population
3. If the competition is a factor that should push the prices down, there is the chance that a company reaches the monopoly, and in that case the result will be the exact opposite of the expected one described above, and the prices may increase and the quality of the products reduce without the worry that the company will lose customers
4. In the situation where the public is awarding some firms to give a service, or when the quality of the provided service is controlled by the public inspectors, there is the risk of corruption, with obvious consequences on the quality of the services

In order to minimize the chance that the drawbacks happen, time and effort have to be spent and the strategy has to be carefully designed: with these conditions the public-private partnership is a viable and positive option. For example, Hovy (2015) suggests that in the partnership the public agency is responsible of the risks that are unexpected and required compensation. In this way, the private counterpart will not risk to be overwhelmed by some circumstances and the public service will not risk sudden withdraw and stop in the service.

Johannessen et al. (2014) indicate some ways on how the PPP can work better:

- Creating an institutional culture for private sector investment based on accountability, facilitated by quality assurance approaches and methods. Strive towards a more green and resilient city environment, and promote concerns about the continuity and long-term reliability of investments
- Developing a better understanding of the customer base, including worldviews, needs and preferences, motivations, and purchasing power. Find out how the “Bottom of the pyramid” investments can become profitable through strategic innovation, especially in poor urban communities.
- Supporting a new segment of private entrepreneurs through legislation, as well as empowerment of and dialog with (informal) small private actors. Create an enabling policy, and a supportive practice in building trust, capacity and dialog.

2. Briefly describe the main activities needed for planning improvements in sanitation and waste management in local institutions.

In a town or village, a good situation in sanitation and waste management has many good consequences in different aspect of the wellbeing of the population. If a local institution invests in the planning stage to improve the sanitation and waste management sector, there is a strong chance to have good services.

The first step requires the knowledge of the purpose of the activity, identifying the stakeholders that are present in the area and their activities.

There is the need as well to know which is the current situation about sanitation, waste management and the problems related to WASH. For this purpose, a survey will be conducted and will provide the baseline data, and from it extrapolate the key information that will allow to analyse the status quo.

Looking at the institutions that are related to this sector, the local and national government are part of the partners: local administration, health office, education office, water office, water utility, school administration, traditional leaders and police, just to mention few of them.

In this preliminary phase, it is important to explore and understand all the resource available, including the ones of the partners: without this step, a realistic planning cannot be done.

Once that the collaboration with partners is built, it is possible to start the planning using all the data available, including the just collected from surveys or assessments.

A list of activities should be produced, with time references, the frequency and the responsible of each of them. The follow-up is a must that cannot be left out. A useful instrument is the inspection, where regular visits are conducted and checklist or questionnaires are used.

Mooijman (2012) indicates that a WASH in school programme should include six principles in order to have a financial sustainability, that is considered a relevant aspect to have improvement in the sector:

1. considering all the cost of an intervention (software and hardware)

2. include the training and supervision/follow-up costs in the software part
3. Local contributions to investment costs should be in proportion to the level of service offered at the facility
4. construction, operation and maintenance costs should be charged through the education budget, since school water supply and sanitation are essential elements of basic education
5. A common financing strategy for the sector will prevent projects and programmes of different agencies and organizations from undermining each other
6. Financial management and cost-sharing plans should be put in place at the school level

3. Composting is an example of waste recycling but it could also be described as an example of recovery from waste. Explain why this statement is true.

Composting can be defined as “the biological decomposition and stabilization of organic substrates, under condition that allows thermophilic temperatures as a result of biologically produced heat, to produce a final product that is stable, free of pathogens and plant seeds, and can be beneficially applied to land” (Haug, 1993).

Organic compost has many beneficial purposes when it is applied to land. It can be used as source of organic matter for maintaining or building supplies of soil humus, or it can improve the growth of crops in agriculture. Stable compost can reduce plant pathogens and improve plant resistance to diseases.

Compost is a result of a process starting from biodegradable organic waste, so this can be classified as recycling since it is a reprocess of the waste into new material. But it fits also in the definition of recovery from waste, as extracting value from waste. The different examples given above show that the compost has a value and it not anymore waste and something discarded.

In simple words, “composting is one nature’s amazing tricks. It helps to recycle waste and puts it to a very good use” (Ray, 2017)

Composting is a process that has a real good potential. For instance, in the USA the municipal solid waste composting began to gain popularity in the late 80s, and this was due to (de Bertoldi, 1996):

- closure of substandard landfills
- strong anti-incinerator sentiments
- introduction of high technology systems to process mixed waste stream
- a growing confidence that composting was an option of handling municipal waste
- economics that would allow composting to compete with incinerators and landfills

Another principle that is behind the process of composting and that push its diffusion is “in nature there is no waste, everything decomposes and continues in a circle to nourish a new life” (Balz, 2017). So, composting in a backyard replicates what happens naturally on the forest floor.

- 4. Imagine there is a local NGO working in the town you are assigned to that wants to develop a school WASH programme. While preparing the project documents, the delegates of the local NGO come to your office and ask you to support them. Describe the minimum requirements that you will advise them to include in the sanitation and hygiene part of their programme.**

The school is a key institution where it is fundamental to have a good sanitation and hygiene programme and routine of good practices.

Where there is not good planning and work in these areas, there is a real risk for the health of the teachers, students and anybody else interacting with the school environment. When the children have a worse health, one of the immediate effect is that the absenteeism will increase or other more severe sicknesses may occur to them.

The programme should aim to integrate hygiene promotion in the daily life of each student and “make” them ambassadors of these messages to their families and communities. As well in each student all the knowledge and the good practices acquired in WASH should remain for the entire life and in the future transmitted to their children of the families they will create.

In order to have a programme that does not leave out any important requirement of a good sanitation and hygiene situation, it should look at:

- provision of improved latrines
- separation of latrines for male and female students, but also for teachers divided by sex
- cleanness of latrines
- provision of enough cubicles of latrines for the number of users
- design of all the infrastructure and its appropriateness following the different needs
- presence of handwashing facilities
- Menstrual Hygiene Management (and presence of disposal facilities)
- provision of waste management facilities

Any WASH in Schools intervention ultimately aims for government policies, community support and school action to sustain the initiative. The keys to sustainability are the development of political interest and commitment, cooperation between ministries, a national education policy on

WASH in Schools, national policies in related sectors and the allocation of sufficient financial and human resources. The policy should aim to improve children's education and health by creating an environment conducive to implementing, operating and maintaining WASH in Schools programmes (Mooijman, 2012).

A good programme that will tackle the problem of poor WASH situation in schools will give benefits also the wider community, since each child that is sick gives the burden of the sickness to the family (WHO, 2009).

Another key aspect of each WASH programme in school is the involvement of all the stakeholders, that will be also responsible of the implementation: school children and their family, teachers, headteachers/directors, local or district education authorities, health sector, school bodies (Parents-Teachers Association, school governors, school committees, etc), public works or water and sanitation sector, construction and maintenance industry. All these participants will have to coordinate in the programme to reach the highest impact of the intervention.

5. Giving examples explain three examples of ways of encouraging or supporting an ISWM approach

ISWM is in full Integrated Solid Waste Management, that it refers to “the strategic approach to sustainable management of solid wastes covering all sources and all aspects, covering generation, segregation, transfer, sorting, treatment, recovery and disposal in an integrated manner, with an emphasis on maximizing resource use efficiency” (Memon, n.d.).

This approach can bring many benefits to the communities and its implementation requires the involvement of many stakeholders, like NGOs, government, city councils, donors and health and environment ministries.

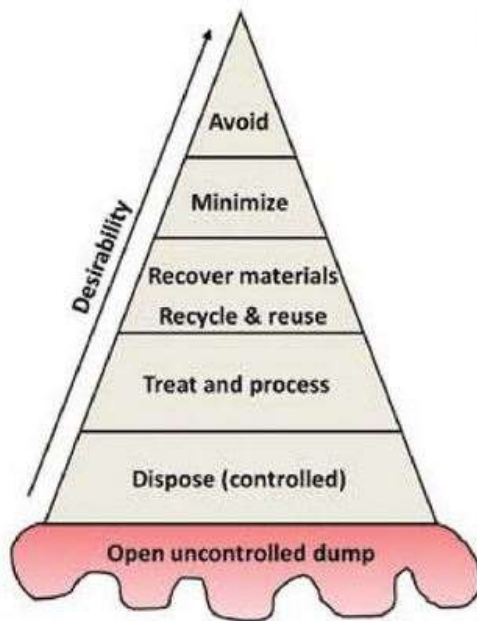
In order to encourage the adoption of this approach there are some options:

- organization of promotional campaign where the practices of recycle, reuse and recovery are spread among the population and awareness is raised
- organization of training for people who are willing to put in place new schemes and give them support at the beginning of the process
- rewarding the best performing individuals, institutions or environment organization to celebrate the successes, also including media coverage and awards
- allowing the local government and municipalities to have more flexibility in budget spending on waste services or increase it
- funding the new initiatives and the small-scale private sector enterprises in waste collection, composting and recycling schemes

The importance of the integrated solid waste management is referred not only to the traditional concern (health and safety), but also to the environmental concern of conservation of resources and pollution, that cannot be left out, as indicated by White, Franke & Hindle (1999).

An intervention of ISWM should include an IEC campaign, and it should not be short otherwise the risk is to fail. The campaign can address the entire life cycle of the waste management, but they are traditionally focused on the waste minimization and recycling aspects. It might also tackle waste segregation (if appropriate) and litter (Asia Development Bank, 2017).

The adoption of the ISWM approach should follow the waste hierarchy, as reported by Ramachandra (2006).



Picture 1: Waste Hierarchy (Ramachandra, 2006)

Each encouragement or support given during the implementation of the ISWM approach should follow and keep in mind this pyramid, where the highest desirability is on the top and the worst is at the bottom.

BIBLIOGRAPHY

- Asian Development Bank, (2017). *Integrated Solid Waste Management for Local Governments: A Practical Guide*. Manila: Asian Development Bank Publisher.
- Balz M. (2017). *Composting for a New Generation: Latest Techniques for the Bin and Beyond*. Minneapolis: Cool Springs Press.
- de Bertoldi M. (1996). *The science of composting*. Dordrecht: Springer Science & Business Media.
- Haug R. T. (1993). *The Practical Handbook of Compost Engineering*. CRC Press.
- Hovy J. (2015). *Risk Allocation in Public-Private Partnerships: Maximizing value for money*. Winnipeg: International Institute for Sustainable Development.
- Johannessen Å., Rosemarin A., Thomalla F., Swartling Å. G., Stenström T. A., Vulturius G. (2014). Strategies for building resilience to hazards in water, sanitation and hygiene (WASH) systems: The role of public private partnerships. *International Journal of Disaster Risk Reduction* 10, 102–115.
- Memon M. A. (n.d.). *Integrated Solid Waste Management*. Osaka, International Environmental Technology Centre. Available on:
https://sustainabledevelopment.un.org/content/dsd/csd/csd_pdfs/csd-19/learningcentre/presentations/May%20%20am/1%20-%20Memon%20-%20ISWM.pdf
- Mooijman A. (2012). *Water, Sanitation and Hygiene (WASH) in Schools*. New York: UNICEF.
- Ramachandra T.V. (2006). *Management of Municipal Solid Waste*. New Delhi, TERI Press.
- Ray T. (2017). *Wonder Waste: a book on composting*. New Delhi: The Energy and Resource Institute.

White P.R., Franke M. & Hindle P., (1999). *Integrated Solid Waste Management: A Lifecycle Inventory*. Gaithersburg, Aspen Publishers.

WHO, (2009). *Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings*. Geneva: WHO press.