

Michaelowa, Axel; Gupta, Naman

**Working Paper**

## Efficient documentation and webmarketing strategies for DNAs

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# DISCUSSION PAPER

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Hamburgisches Welt-Wirtschafts-Archiv (HWWA)  
Hamburg Institute of International Economics  
Neuer Jungfernstieg 21 - 20347 Hamburg, Germany  
Telefon: 040/428 34 355  
Telefax: 040/428 34 451  
e-mail: [hwwa@hwwa.de](mailto:hwwa@hwwa.de)  
Internet: <http://www.hwwa.de>

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# **HWWA Discussion Paper**

## **Efficient documentation and webmarketing strategies for DNAs**

**Naman Gupta**  
**Axel Michaelowa**

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<http://www.hwwa.de>

Hamburg Institute of International Economics (HWWA)  
Neuer Jungfernstieg 21 - 20347 Hamburg, Germany  
e-mail: [hwwa@hwwa.de](mailto:hwwa@hwwa.de)

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Head: Dr. Axel Michaelowa

## Efficient documentation and webmarketing strategies for DNAs

### ABSTRACT

In accordance with the modalities and procedures for a Clean Development Mechanism (CDM) decided in Marrakech 2001, "Parties participating in the CDM shall designate a national authority for the CDM." Till date only 89 Parties have established their Designated National Authority (DNA). Capacity building and marketing the national CDM programmes to buyers of Certified Emission Reductions (CERs) or project investors is one of the important tasks of host countries. In that context, website development and hosting is a key outreach mechanism for DNAs to market their national CDM programme as well as improving their country's competitiveness on the global market. But also Annex I DNA websites can play a useful role, particularly for host country companies who want to assess the attractiveness of countries as buyers of CERs.

As per the information available on the internet, only 26 Parties among which are 8 Annex I countries have set up official DNA websites which contain a variety of information related to CDM as well as climate change-related activities. As it has been observed that the organisation of most of the DNA websites and quality of information available can be improved and webmarketing tools seem not to have been used, we suggest a standard model structure of websites separately for DNAs of Non-Annex I and Annex I countries differentiated according to the size and CDM attractiveness of the host country.

**Keywords:** CDM, DNA website, Non- Annex I countries, Annex-I countries, marketing.

**JEL classification:** Q 540, Q 560

#### Address for correspondence:

Naman Gupta (Ms.)  
Environment Specialist, Clean Development Mechanism  
GTZ- CDM India, Indo- German Energy Programme  
A-33, Gulmohar Park  
New Delhi- 110049, India  
Tel: +91 (0)11- 26611021, 26528840 (Extn. 24)  
E- mail: [naman@cdmindia.com](mailto:naman@cdmindia.com)

## 1. PRESENT STATUS OF DNAs AND THEIR WEBSITES

Out of 156 countries, who have ratified the Kyoto Protocol, 89 countries have established their Designated National Authority (DNA) offices for approval of projects under the Clean Development Mechanism (CDM).<sup>1</sup> By November 5, 2005, only 26 (18 Non-Annex I and 8 Annex-I) countries had developed the websites of their DNAs. The web addresses of all 26 DNAs are given in Tables 1 and 2:

**Table 1: List of DNA websites - Non- Annex I Countries**

| No. | Country     | Website   |
|-----|-------------|---|
| 1.  | Bolivia     | <a href="http://www.pncc.gov.bo">Http://www.pncc.gov.bo</a>   |
| 2.  | Brazil      | <a href="http://www.mct.gov.br/clima/ingles">Http://www.mct.gov.br/clima/ingles</a>   |
| 3.  | Cambodia    | <a href="http://www.camclimate.org.kh">Http://www.camclimate.org.kh</a>   |
| 4.  | China       | <a href="http://cdm.ccchina.gov.cn/english">Http://cdm.ccchina.gov.cn/english</a>   |
| 5.  | Colombia    | <a href="http://www.cecodes.org.co/cambio_climatico/ocmcc.htm">Http://www.cecodes.org.co/cambio_climatico/ocmcc.htm</a>           |
| 6.  | Ecuador     | <a href="http://www.cordelim.net">Http://www.cordelim.net</a>   |
| 7.  | Egypt       | <a href="http://www.cdmegypt.org">Http://www.cdmegypt.org</a>   |
| 8.  | Georgia     | <a href="http://www.climatechange.telenet.ge/cdm-georgia.htm">Http://www.climatechange.telenet.ge/cdm-georgia.htm</a>             |
| 9.  | India       | <a href="http://envfor.nic.in/cdm">Http://envfor.nic.in/cdm</a>   |
| 10. | Indonesia   | <a href="http://dna-cdm.menlh.go.id">Http://dna-cdm.menlh.go.id</a>   |
| 11. | Malaysia    | <a href="http://www.ptm.org.my/CDM_website/Index.htm">Http://www.ptm.org.my/CDM_website/Index.htm</a>                             |
| 12. | Morocco     | <a href="http://www.mdpmaroc.com/English/cdm_nationalstrategy.html">Http://www.mdpmaroc.com/English/cdm_nationalstrategy.html</a> |
| 13. | Nicaragua   | <a href="http://www.ondl.gob.ni/english/index.html">Http://www.ondl.gob.ni/english/index.html</a>                                 |
| 14. | Panama      | <a href="http://www.anam.gob.pa/cambioclimaticopanama/index.htm">Http://www.anam.gob.pa/cambioclimaticopanama/index.htm</a>       |
| 15. | Peru        | <a href="http://www.fonamperu.org/general/mdl/what.asp">Http://www.fonamperu.org/general/mdl/what.asp</a>                         |
| 16. | Philippines | <a href="http://www.klima.ph/cd4cdm">Http://www.klima.ph/cd4cdm</a>   |
| 17. | Uruguay     | <a href="http://www.cambioclimatico.gub.uy/index.php">http://www.cambioclimatico.gub.uy/index.php</a>                             |
| 18. | Vietnam     | <a href="http://www.noccop.org.vn">http://www.noccop.org.vn</a>   |

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<sup>1</sup> Source: <http://cdm.unfccc.int>

**Table 2: List of DNA websites - Annex I Countries**

| No. | Country     | Website   |
|-----|-------------|---|
| 1.  | Austria     | <a href="http://www.klimaschutzprojekte.at/en/programm/programm.php">http://www.klimaschutzprojekte.at/en/programm/programm.php</a> |
| 2.  | Canada      | <a href="http://www.dfait-maeci.gc.ca/cdm-ji/menu-en.asp">http://www.dfait-maeci.gc.ca/cdm-ji/menu-en.asp</a>                       |
| 3.  | Denmark     | <a href="http://www.mst.dk/homepage">http://www.mst.dk/homepage</a>   |
| 4.  | Japan       | <a href="http://www.kyomecha.org/e/info.html">http://www.kyomecha.org/e/info.html</a>   |
| 5.  | Netherlands | <a href="http://www.vrom.nl/international">http://www.vrom.nl/international</a>   |
| 6.  | Spain       | <a href="http://www.mma.es/oecc/and.htm">http://www.mma.es/oecc/and.htm</a>   |
| 7.  | Switzerland | <a href="http://www.umwelt-schweiz.ch/swissflex/eng/index.html">http://www.umwelt-schweiz.ch/swissflex/eng/index.html</a>           |
| 8.  | UK          | <a href="http://www.dti.gov.uk/ccpo">http://www.dti.gov.uk/ccpo</a>   |

## **2. INFORMATION AVAILABLE ON WEBSITES OF DNAs**

In case of Non-Annex I countries, the websites in general provide information about the UN Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol as well as background information on the CDM. Other topics are structure of DNA and host country approval criteria and procedures. Downloadable Project Idea Note (PIN) and Project Design Documents (PDD) formats and CDM project portfolios can be found on a number of websites. Publications related to CDM and climate change as well as the legal framework for foreign investment are made available on some of the websites. Sections on news and events, related links and a glossary feature on some websites as well.. Some of the sites also host a database of CDM experts (Ecuador), National Strategy Study (Egypt), eligibility criteria for CDM projects (India, Malaysia), discussion forum (Morocco). The only webmarketing tool used on a few websites is a public hit counter (Philippines, Malaysia, Egypt). Most of the sites provide information in English with the exception of three Latin American sites (Colombia, Panama and Uruguay) that have Spanish text only. Non-English information has been observed in several other websites and requires serious attention. The analysis of the sites shows that most of the sites are either not well structured and presented or the available information is not updated regularly.

Seven websites of Annex-I countries, except that of Spain (in Spanish) host information in English. Except Canada where French is lacking, Denmark and the Netherlands, websites are available in the national language as well. Unlike Non- Annex I countries, there is not much

similarity in Annex I countries' sites in terms of content. However, in general all sites contain background material on the Kyoto Mechanisms with a detailed description on CDM and/ or JI. On some of the sites, there is text related to the country's CDM programmes, information about the country's climate policy and project cycle, approved projects, memoranda of understanding (MoUs), and the legal framework. The Canadian and Japanese sites are well structured and provide detailed description on assistance criteria and mechanisms for eligible CDM projects. Only the Japanese site gives current details on approved projects and is updated regularly. Comparative structures of all Non-Annex I and Annex I DNA websites are presented in the form of matrix in Appendix 1 and 2 respectively.

### **3. PROBLEMS IN EXISTING DNA WEBSITES**

Many problems were noticed on most of the DNA websites which are explained under this section. Most of the sites are not well structured and so complicated that it is very difficult to trace the desired information easily. For example, in case of Georgia information about projects, UNFCCC, Kyoto Protocol, EU emission trading, links, publications etc. is not organised under any menu and just linked to the sentence – “ Technical Assistance to Armenia, Azerbaijan.....“ which is placed somewhere in the text of the main CDM page.

Some of the websites of Non-Annex I countries do not have English versions which makes them non-competitive in the global market. On the Panaman and Nicaraguan website some important information including the project portfolio is available in English but that is well hidden behind the Spanish version; even on the homepage there is no link to the English elements on the website. Also in the case of Japan, various important documents in English are uploaded in the Japanese version and are not found on the English version of the site. Moreover, on the homepages of several sites there is no direct link to English version and there is no clear path to all pages of same language.

The content uploaded on most of the websites is either not adequate or not refreshed frequently. Not only Non-Annex I (Cambodia, Georgia, Malaysia, Peru, Panama, Vietnam) but sites of Annex I countries like Netherlands, UK and Denmark are not updated regularly. Also, the date of the last update is not mentioned on most of the sites. On some sites, the key information such as the CDM project portfolio (in case of host countries) and the list of approved projects are not strategically placed. The user has to go through all the menus to find projects. Some sites provide the list of CDM projects but do neither provide contact details of the project developer



nor brief descriptions about project activities, which makes the information less useful. Even sites of Annex I Parties like Austria does not provide names and descriptions of approved projects. None of the Non-Annex I sites except Ecuador provides updated status of individual projects. So its difficult for the user to find out at which stage of CDM project cycle a project currently is.

In many cases the menus and submenus are not interrelated. Like on Indonesian site the important *Form to submit project proposals* is placed under *Database* of CDM experts. On some sites the size, style or colour of font is not readable. While the Brazilian website is a very good website in terms of quality of content, its menus and submenus are hardly readable due to very small size of fonts.

Some sites are not exclusively dedicated to climate change or CDM but are mixed with some other environmental issues which makes them less user- friendly. For example, Vietnam's climate change site is mixed with the one of the ozone layer protection programme.

One other important observation is this that there have been attempts by private/ commercial web service providers who developed websites which look like an official DNA website but in reality have no relation with the government. One such website was found in Brazil (<http://www.ahk.org.br/cdmbrasil/index.htm>) which gives an impression of being the official DNA site.

Overall, we find that amongst Non-Annex I countries China, Ecuador, Egypt, India Malaysia and Philippines have good websites followed by Morocco and Brazil. The Brazilian website is good in terms of content but is badly structured and presented. The French version of the Morocco's website and Spanish version of Nicaragua's site are impressive but the English versions are less up to date (Morocco) or hidden (Nicaragua). The websites of Columbia, Georgia, Peru, Panama, Nicaragua and Uruguay need more attention and improvement to make them internationally competitive.

In the case of Annex I countries the Canadian website can be ranked highest followed by Japan whose Japanese site has good content but is not well structured. The websites of Denmark, Netherlands, Spain, Switzerland and United Kingdom have a wide scope of improvement. The concept of the site of United Kingdom is very good but the site lost its relevance as it has not been updated for a long time.

## **4. SUGGESTIONS FOR IMPROVEMENT**

An international, high-quality DNA website should have an attractive design with soft colours, readable fonts in terms of style, size and colour and the overall appearance of the website should give a clear impression of the site being the official website of DNA, e.g. by displaying official logos. Structurally and organisationally the menus and submenus should be well organised on all pages and the submenus should consistently be a part of the higher menu.

The quality of the content can be maintained by uploading only relevant information and not repeating similar information. The sites should be updated regularly and the date of last updating should be mentioned on each webpage for convenience of the users. A tracking mechanism can be incorporated for updating the actual status of the approved projects hosted on the websites. One such mechanism can be that access right to the information of each project could be given to the respective project developer who can modify the status of the corresponding project as and when required, while the web administrator publishes the modified versions later. This mechanism saves the time of the person involved in updating and on the other hand it makes it more likely that the information is correct. The list of criteria which can be included in such a tracking mechanism is given in Appendix 7. A similar login access could be given to CDM service providers and experts to update their/ their company's profiles

As the CDM is a global mechanism, all DNA websites should be compulsorily developed in English which is the language of the CDM Executive Board, and only optionally in other languages. Moreover, there should be clear links to all language versions available on the homepage and there should be a clear and well structured path of information for each version.

Considering some technical features now, the downloadable files, presentations etc. should be uploaded in Adobe Acrobat pdf format instead of Microsoft Office formats and the use of too many pictures or animations should be avoided in order to ensure quick loading of webpages which is important for users with slow access modes. In case of lack of human resource expertise, the site should be developed with the help of Web Content Management System (WCMS) rather than HTML and the dynamic pages should be developed with the help of software programmes which provide a control panel for each page. This is a very quick, easy and error-free option for web-maintenance. The software tools used for developing the website should be chosen carefully so that there is always scope for further restructuring and modifications.

We suggest to upload a feedback form on site to get suggestions of the users in order to further improve it. To further enrich their sites and help buyers to find desired projects and thus helping unilateral projects to find buyers without involvement of intermediaries, a searchable database of projects can be uploaded on host countries' sites. Some search criteria for such database are suggested in Appendix 6.

The web address of the DNA should be self-explanatory in terms of being a official CDM/ DNA site. Moreover the DNA officials should keep an eye on the private or commercial web service providers by not allowing them to use some terms such as DNA, CDM in combination with the country's name while registering their domain name, as it may mislead the users. DNAs should also check attempts of development of semi/ pseudo official websites by commercial web service providers in order to maintain clarity and authenticity of the provided information.

A suggested sitemap for a well established DNA of a Non-Annex I Party having enough resources, a sitemap for a Non-Annex I DNA with low CDM potential and limited resources and a sitemap for an Annex-I country are available in Appendix 3, 4 and 5 respectively.

#### **4.1 Resources needed for website development and maintenance**

Before developing a website, DNAs should assess the available resources such as staff for web-maintenance who should have sound knowledge about website development and should have some background knowledge about CDM, budget for salary, internet charges etc., easy and uninterrupted access to internet, reliable, scalable, secure, accessible, and manageable software applications and tools. Appendix 8 calculates these costs for an advanced and simple website concept. The setup of the website costs between 300 and 1500 €, annual maintenance would be around 650 € for the simple and 3150 € for the advanced website. As these estimates are based on Indian salary rates for webprogrammers, in other countries with less availability of such skills costs may be substantially higher.

#### **4.2 How to minimise the resource requirement**

To save time one can provide external links to UNFCCC or other international websites for general information such as background information on UNFCCC, Kyoto Protocol, Marrakech Accords, CDM project cycle and some good publications. But in such cases the links should be

regularly checked. To avoid any complication and delay during web-maintenance, the software programme should be chosen very carefully as specified above.

## **5. TOOLS FOR WEBMARKETING**

We suggest the DNAs of larger countries having sufficient resources that they can adopt some of the webmarketing tools<sup>2</sup> discussed below, in order to popularise their respective websites.

- **Keyword Selection and Analysis Tool:** Before writing text, it is imperative to select the most valuable keywords to target for search engine optimisation so that the users are able to track the desired website easily.
- **Web Page Analyser:** web page analyser tools verify how well the web pages perform from differing perspectives. These tools can be used to determine how “search engine friendly” the pages are, how quickly they load at differing connection speeds and how cleanly code is structured.
- **Meta Keyword Generator:** By using this one can analyse the web page to identify the most commonly used terms with density percentages and will automatically generate Meta keyword tag based upon the terms and words selected.
- **Link Popularity Check:** Link popularity is a concept of measuring the importance of a web page by a search engine as a component of its search engine ranking criteria. Link popularity is a measurement of the combined value of links to the website from other websites.
- Along with on-page optimisation, title tags and meta tags. Link Popularity, Anchor Text (Allinanchor) and Size of Website are contributors to ranking potential. They are all measured for relevancy to a search query which is the pillar foundation of search engine ranking algorithms.
- Press releases and publications. People read about new web sites in printed publications or online, and it is quite useful to drive traffic to the site. So the URL of the respective website should be always mentioned in all publications and written communications made by the DNAs.

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<sup>2</sup> Tools have been taken from the discussion in <http://www.subiasoft.com/website-marketing.html>

- Online promotion. Marketers can post to the local Newsgroups and forums in each country to discuss your web site and its merits. They can also try to strategic links on DNA websites of other countries not competing with the country hosting the site and websites of CDM service providers.

## **5.1 Success Indicators/ Measurements**

There are several website development and marketing metrics which help in measuring a website's activity and effectiveness<sup>3</sup>. Web site metrics track customers' behaviour in real time and help identify the effectiveness of the site's information architecture, content, and design. The website's activity and effectiveness can be measured by counting the number of unique visitors or registered users (by uploading public hit counters), counting the total number of web pages viewed, the number of times the home page or other specific pages are viewed, or how long users spent on your site on any given day, the number of times people visit your site by clicking on a link in an ad or newsletter or on some other site, the ratio of the number of people who visit the site to the number of people who do a follow-up with respect to CDM project approval.

## **5.2 Points to remember before developing and launching a website**

Before developing and launching a website following points are to be kept in mind. First the country should analyse whether it actually needs a website for its DNA? If the country has very low potential for CDM or they just get only one projects every two years, they may not need a DNA website or they just simply need a very simple website with limited features. Such a simple structure of website is described in Appendix 4. The DNAs should also assess the resources available for developing and maintaining their sites. If they think that having a website can really help them in marketing their national CDM programme and projects, then only they should design a website. Further, they should do a cost benefit analysis before taking a final decision. Based on such cost-benefit analysis and security aspects DNAs can also decide

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<sup>3</sup> See

[http://www.cisco.com/en/US/netsol/ns339/ns444/ns453/networking\\_solutions\\_white\\_paper0900aecd800eb92e.shtml](http://www.cisco.com/en/US/netsol/ns339/ns444/ns453/networking_solutions_white_paper0900aecd800eb92e.shtml)

on whether they should develop and maintain the site inhouse or they should outsource this activity.

If the DNA decides to finally launch its website then it should consider who is the main target group and what are their expectations from DNA? They should understand and define the methods and practices, including resources, pricing, policies and procedures, needed to launch and maintain your site. It is advisable for DNAs to keep in mind that simple, easy and manageable software applications and tools should be used while developing the website.

## **6. CONCLUSION**

Only about a quarter of UNFCCC-notified DNAs has a website. We suggest that having a DNA website improves the CDM market image of the country but, at the same time merely having a good looking but inactive/ idle website has no relevance. Most current DNA websites are seriously flawed in this respect. To accomplish the real objective of capacity building and marketing of the national CDM programme, the DNA website should have an attractive design with clear messaging, rich content which is regularly updated, well organised structure and clearly defined language policy. Realising that there is always some scope of improvement, the DNAs should ask for feedback of the users or upload a feedback form on websites. They can also keep track of popularity of their websites by uploading public hit counters on their sites. Countries with a limited CDM project potential should only set up a basic version of a website if at all, taking into account the costs of setting up and operating the website.

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List of DNAs: <http://cdm.unfccc.int/DNA>

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All existing websites of DNAs as specified in Tables 1 and 2

## Appendix 1

### Comparison of structures of DNA websites: Non-Annex I Countries

| N<br>o. | Country  | Website<br>language<br>(English/<br>other/<br>both) | About<br>UNFCCC,<br>Kyoto<br>Protocol | Info on<br>CDM | DNA<br>Background<br>and/ or<br>Resolution | Host<br>country<br>approval<br>criteria/pr<br>ocedure<br>with<br>applicatio<br>n formats | Project<br>portfolio            | CDM<br>participan<br>ts<br>database | Events<br>/News | National<br>Strategy<br>Study and/<br>or national<br>communic<br>ation | Discus<br>sion<br>forum | Newslett<br>er | Legisla<br>tion    | General<br>info<br>(Publicatio<br>ns,<br>Glossary,<br>Links | Remarks/<br>Any other<br>info                                | Probable<br>last update            | Ranking<br>(Good/<br>Average/<br>Poor)      |
|---------|----------|---|---------------------------------------|----------------|--|--|---------------------------------|-------------------------------------|-----------------|--|-------------------------|----------------|--------------------|---|--|------------------------------------|---|
| 1.      | Bolivia  | Eng./<br>Spanish                                    | Y                                     | Y              | Y  | N  | Y<br>(No<br>approval<br>status) | Y                                   | N               | N  | N                       | N              | N                  | Y   | Keywords<br>like DNA,<br>CDM not<br>mentioned on<br>homepage | N/A                                | Poor  |
| 2.      | Brazil   | Eng./<br>Spanish/<br>French                         | Y                                     | Y              | Y  | Y  | Y                               | N                                   | N               | Y  | Y                       | N              | Y<br>(Spanis<br>h) | Y   | No official<br>appearance                                    | 21/10/05                           | Average<br>(content)<br>Poor<br>(structure) |
| 3.      | Cambodia | English   | N                                     | Y              | Y  | Y  | N                               | N                                   | Y               | N  | N                       | N              | N                  | Y   | Not updated<br>since long                                    | 14/06/04                           | Average<br>(structure)<br>Poor<br>(content) |
| 4.      | China    | English<br>and<br>Chinese                           | N                                     | Y              | Y  | Y  | Y                               | N                                   | Y               | N  | N                       | N              | N                  | Y   | Description<br>abt projects<br>not available                 | 25/10/05<br>(Updated<br>regularly) | Good  |



| N o. | Country   | Website language (English/ other/ both | About UNFCCC, Kyoto Protocol | Info on CDM | DNA Background and/ or Resolution | Host country approval criteria/procedure with application formats | Project portfolio    | CDM participants database | Events /News    | National Strategy Study and/ or national communication | Discussion forum | Newsletter | Legislation | General info (Publications, Glossary, Links | Remarks/ Any other info   | Probable last update | Ranking (Good/ Average/ Poor) |
|------|-----------|--|------------------------------|-------------|-----------------------------------|---|----------------------|---------------------------|-----------------|--|------------------|------------|-------------|---|---|----------------------|-------------------------------|
| 5.   | Colombia  | Spanish only                           | -                            | -           | -                                 | -   | Y                    | Y (buyers list)           | -               | -  | -                | -          | Y           | MoU   |   | N/A                  | Poor                          |
| 6.   | Ecuador   | English and Spanish                    | N                            | Y           | Y                                 | Y (in Spanish)  | Y                    | Y                         | Y               | N  | N                | Y          | N           | Y   | Service centre (proj. Finance, proj. Dev. Experts, newsletter etc.) | 25/10/05             | Good                          |
| 7.   | Egypt     | English                                | N                            | N           | Y                                 | Y   | Y                    | N                         | Y               | Y  | N                | N          | N           | Y   | Public hit counter  | 21/10/05             | Good                          |
| 8.   | Georgia   | English                                | Y                            | N           | Y                                 | Y   | N                    | N                         | Y (not updated) | N  | N                | N          | N           | Y   |   | 01/03/05             | Poor                          |
| 9.   | India     | English                                | N                            | N           | Y                                 | Y   | Y                    | N                         | Y               | N  | N                | N          | N           | Y   |   | /10/05               | Good                          |
| 10.  | Indonesia | English and Indonesian                 | N                            | N           | Y                                 | Y   | No project till date | Y                         | N               | N  | N                | N          | N           | Y   |   | N/A                  | Poor                          |
| 11.  | Malaysia  | English                                | N                            | Y           | Y                                 | Y   | Y                    | N                         | Y               | N  | N                | N          | N           | Y   | Malaysian CDM info handbook   | /03/05               | Good (structure)              |

| N o. | Country     | Website language (English/ other/ both) | About UNFCCC, Kyoto Protocol | Info on CDM    | DNA Background and/ or Resolution | Host country approval criteria/procedure with application formats | Project portfolio        | CDM participants database | Events /News | National Strategy Study and/ or national communication | Discussion forum   | Newsletter | Legislation | General info (Publications, Glossary, Links) | Remarks/ Any other info  | Probable last update | Ranking (Good/ Average/ Poor)      |
|------|-------------|---|------------------------------|----------------|-----------------------------------|---|--------------------------|---------------------------|--------------|--|--------------------|------------|-------------|--|--|----------------------|------------------------------------|
| 12.  | Morocco     | English/ French                         | N                            | N              | Y                                 | Y   | Y (no proj. description) | Y                         | N            | N  | Y (in French only) | N          | N           | Y  |  | 29/10/05             | Good (French)<br>Average (English) |
| 13.  | Nicaragua   | English and Spanish                     | Y                            | Y              | Y                                 | -   | Y (in Spanish)           | N                         | N            | N  | N                  | N          | N           | Y (in Spanish)                               | Most of the info in Spanish  | N/A                  | Good (Spanish)<br>Poor (English)   |
| 14.  | Panama      | Spanish<br>Few pages in English         | N                            | Y (in Spanish) | N                                 | N   | Y                        | N                         | N            | N  | N                  | N          | Y           | Y  | MoU<br>Market conditions in Panama.<br>Eng. pages well hidden behind Spanish version | N/A                  | Poor                               |
| 15.  | Peru        | English                                 | N                            | N              | Under construction                | N   | Under construction       | N                         | N            | N  | N                  | N          | N           | N  | Most of the pages under construction   | N/A                  | Poor                               |
| 16.  | Philippines | English                                 | Y                            | Y              | Y                                 | Y (No application form)   | Y                        | N                         | Y            | N  | N                  | N          | N           | Y  | Public hit counter   | 06/10/05             | Good                               |

| <b>N o.</b> | <b>Country</b> | <b>Website language (English/ other/ both)</b> | <b>About UNFCCC, Kyoto Protocol</b> | <b>Info on CDM</b> | <b>DNA Background and/ or Resolution</b> | <b>Host country approval criteria/procedure with application formats</b> | <b>Project portfolio</b> | <b>CDM participants database</b> | <b>Events /News</b> | <b>National Strategy Study and/ or national communication</b> | <b>Discussion forum</b> | <b>Newsletter</b> | <b>Legislation</b> | <b>General info (Publications, Glossary, Links)</b> | <b>Remarks/ Any other info</b>                                     | <b>Probable last update</b> | <b>Ranking (Good/ Average/ Poor)</b> |
|-------------|----------------|--|-------------------------------------|--------------------|--|--|--------------------------|----------------------------------|---------------------|---|-------------------------|-------------------|--------------------|---|--|-----------------------------|--------------------------------------|
| 17.         | Uruguay        | Spanish  | -                                   | -                  | -  | -  | -                        | -                                | -                   | -   | -                       | -                 | -                  | -   | Info not available in English. Spanish version is also not updated | -                           | Poor                                 |
| 18.         | Vietnam        | English and Vietnamese                         | Y                                   | N                  | N  | Y  | Y                        | N                                | Y                   | N   | N                       | N                 | N                  | N   |  | 22/07/05                    | Poor                                 |

Y= Yes, N = No

## Appendix 2

### Comparison of structures of DNA websites: Annex I Countries

| No. | Country     | Website language (English/ other/ both) | About UNFCCC / KP/ Marrakech accords | Info on CDM | DNA background and/or resolution | Country's CDM/ JI program me | CDM approval requirements and procedure with application formats and guidelines | Assistance criteria | List of approved projects          | CDM participants database | Project implementation mechanisms | Events/ News | National climate/ CDM policy | Legal framework/ Legislation | General info (Publications, Glossary, Links) | Remarks/ Any other info                             | Probable last update | Ranking (Good/ Average/ Poor) |
|-----|-------------|---|--------------------------------------|-------------|----------------------------------|------------------------------|---|---------------------|------------------------------------|---------------------------|-----------------------------------|--------------|------------------------------|------------------------------|--|---|----------------------|-------------------------------|
| 1.  | Austria     | Eng./ German                            | Y                                    | Y           | N                                | Y                            | Y   | N                   | Y (only names and nos. No details) | N                         | N                                 | Y            | Y                            | Y                            | Y  | MoU, Suggestion/ feedback and disclaimer            | /08/05               | Average                       |
| 2.  | Canada      | English                                 | Y                                    | Y           | Y                                | Y                            | Y   | Y                   | N                                  | N                         | Y                                 | Y            | N                            | N                            | Y  | Types of qualifying projects                        | 29/09/05             | Good                          |
| 3.  | Denmark     | English                                 | N                                    | N           | N                                | N                            | Y   | N                   | Y                                  | N                         | N                                 | Y            | Y                            | N                            | N  | NAP and GHG inventories. No link to CDM on homepage | 21/07/05             | Poor                          |
| 4.  | Japan       | Eng./ Japanese                          | Y                                    | Y           | N                                | Y                            | N   | Y                   | Y                                  | N                         | Y                                 | Y            | N                            | N                            | Y  | Info about country                                  | 27/10/05             | Good                          |
| 5.  | Netherlands | English                                 | N                                    | Y           | N                                | N                            | Y   | N                   | N                                  | N                         | Y                                 | N            | Y                            | Y                            | N  |   | 21/03/04             | Poor                          |
| 6.  | Spain       | Spanish                                 | -                                    | -           | -                                | -                            | -   | -                   | -                                  | -                         | -                                 | -            | -                            | -                            | -  | Requires additional software to open the site       | -                    | Poor                          |

| No. | Country     | Website language (English/other/both) | About UNFCCC / KP/ Marrakech accords | Info on CDM | DNA background and/or resolution | Country's CDM/JI program | CDM approval requirements and procedure with application formats and guidelines | Assistance criteria | List of approved projects | CDM participants database | Project implementation mechanisms | Events/ News | National climate/ CDM policy | Legal framework/ Legislation | General info (Publications, Glossary, Links) | Remarks/ Any other info                                  | Probable last update | Ranking (Good/ Average/ Poor) |
|-----|-------------|---------------------------------------|--------------------------------------|-------------|----------------------------------|--------------------------|---|---------------------|---------------------------|---------------------------|-----------------------------------|--------------|------------------------------|------------------------------|--|--|----------------------|-------------------------------|
| 7.  | Switzerland | Eng./ German/ French                  | Y                                    | Y           | N                                | Y                        | Y   | N                   | N                         | N                         | Y                                 | N            | N                            | Y                            | N  | Swiss registry   | -                    | Average                       |
| 8.  | UK          | English                               | Y                                    | N           | N                                | N                        | Y   | Y                   | Y (not updated)           | Y (UK companies list)     | Y                                 | N            | Y                            | N                            | Y  | detailed info about Carbon credits, info about countries | 04/11/05             | Poor (content update)         |

Y= Yes, N = No

### **Proposed sitemap for large DNA website : Non-Annex I countries<sup>4</sup>**

1. Homepage (should have the official logos and should include a search engine, direct link to project portfolio, public hit counter, sitemap, link to other language version of site, sitemap and announcements apart from all other menus)
2. News and Events
3. Background information
  - Climate change
  - UNFCCC
  - Kyoto protocol
  - Clean Development Mechanism
    - Decisions
    - Executive Board
    - DNAs (linked to UNFCCC website)
    - DOEs (linked to UNFCCC website)
    - Approved Baseline and Monitoring Methodologies
    - Project Design Document Format (linked to UNFCCC website)
  - Country and convention
  - NATCOM/ NSS
4. CDM in \_\_\_\_\_ (country's name)
  - CDM Project Cycle
  - CDM capacity building projects
  - Manual of Administrative Guidelines for CDM Projects
  - CDM Information Handbook / implementation guide
5. About DNA
  - Background
  - Resolution/ Legal framework
  - Host Country Approval Procedure
  - Project eligibility criteria
  - Host Country Approval Criteria
  - Procedure for submitting projects
    - PCN format
    - PDD format
    - Online application form
  - MoUs
6. CDM Project portfolio
  - All approved projects..... Format given .....Appendix 8
  - Projects in pipeline
  - Tracking project status..... Format given .....Appendix 7
  - Shortlist projects sectorwise/ locationwise
7. Service Centre
  - CDM project finance
  - Subscription to newsletter

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<sup>4</sup> The structure suggested above requires substantial resources in terms of manpower, money and technology. So it is advisable for countries with low potential for CDM and/or having less resources to develop a simpler website with minimum no. of menus in order to save resources needed. The minimum information expected from a Non-Annex I Party's DNA website is shown in the sitemap given as Appendix 4.

- CDM stakeholder database
    - PDD Developers/Consultants
    - DOEs/ Validators
    - Potential Buyers
    - Investors
    - Carbon Funds
  - Register to create, modify and publish a professional or company profile
8. Library
    - UNFCCC documents
    - Publications
    - Technical papers
    - Presentations
    - Proceedings
    - Press releases
  9. Useful Links
  10. Glossary
  11. Sitemap
  12. Feedback (online form)
  13. Discussion forum (optional)
  14. Disclaimer
  15. Contact us

Additionally, a well established DNA with enough resources can go for a searchable database of projects and tracking mechanism for projects status.

**Sitemap for DNA website: Non-Annex I countries with low CDM potential and resources**

1. \*Homepage (should have the official logos, direct link to project portfolio (if existing), sitemap, link to other language version of site, sitemap and announcements apart from all other menus)
2. \*\*Background information
  - UNFCCC.....*Link to respective UNFCCC page*
  - Kyoto protocol..... *Link to respective UNFCCC page*
  - Clean Development Mechanism..... *Link to respective UNFCCC page*
3. \*About DNA
  - Resolution/ Legal framework.....*can be uploaded as pdf file.*
  - Host Country Approval Procedure
  - Project eligibility criteria
  - Host Country Approval Criteria
  - Procedure for submitting projects
    - PCN format
    - PDD format
    - Download form to request approval
4. \*CDM Project portfolio
  - All approved projects..... Format given ..... Appendix 8
  - Projects in pipeline
5. \*\*CDM personnel database.....*Link to good and reliable international CDM/DNA sites*
6. \*\*Library
  - UNFCCC documents ..... *Link to respective UNFCCC page*
  - Publications (if any)
7. \*\*Useful Links.....*Beyond the links- based menu items*
8. \*Contact

\* Compulsory menus for all countries.

\*\* Suggested menus for countries with medium potential and not for countries having very low potential.

Note: The links should be regularly checked for their operational status.



**Sitemap for DNA website : Annex-I countries**

1. Home (should have the official logos and should include search engine, direct link to project portfolio, Public hit counter, sitemap, link to other language version of site, sitemap and announcements apart from all other menus)
2. News and Events
3. Background information
  - Climate change
  - UNFCCC
  - Kyoto mechanisms
  - Clean Development Mechanism
    - Decisions
    - Executive Board
    - DNAs (linked to UNFCCC website)
  - Country and convention
  - National Climate Policy
4. Country (country's name) CDM Programme
  - Role of country's CDM office
  - CDM guidelines
  - CDM capacity building
  - CDM Information Handbook / implementation guide (optional)
5. Project Planning and implementation
  - Eligible projects
  - Baselines
  - Approval procedure
  - Contracting methods
  - Assistance criteria
    - Project finance/ Assessing financial support (evaluation criteria, eligible expenses)
    - Proposal requirements and formats
    - Further guidance
6. Host countries
  - Eligibility
  - Legal arrangements
  - Countries with whom MoUs signed
7. CDM Project portfolio
  - All approved projects
  - Shortlist projects sectorwise/ locationwise
8. CDM personnel database
  - Investors

- Potential Buyers
- Carbon Funds
- Register to Create, modify and publish a professional or company profile

9. Learning Centre

- UNFCCC documents
- Publications
- Technical papers
- Presentations
- Proceedings
- Press releases
- others

10. Useful Links

11. Glossary

12. Sitemap

13. Feedback (online form)

14. Discussion forum (optional)

15. Disclaimer

16. Contact us

**List of criteria for searchable database of CDM projects**

1. Name of the project
2. Location of the project
  - All
  - List all states of India
3. Project type/ Sector.....Can be further categorised in subcategories mentioned in brackets.
  - All
  - Energy Efficiency..... (Industry, building, household)
  - Fuel Switch..... (oil to gas, coal to gas, coal to naptha etc.)
  - Industrial gases.....(HFC, PFC)
  - Methane capture.....(Landfill, biomethanation, composting, agricultural waste, wastewater)
  - Renewable energy....solar, hydro, biomass cogeneration, other biomass, wind, geothermal)
4. Expected CERs untill 2012----- text box (only numbers)
5. Project start date
  - Date/month/year (start from 1<sup>st</sup> January, 2000)
6. Expected date of first CER delivery
  - Date/month/year
7. Crediting period
  - 10 years
  - 7 X 3 years
8. CDM project status
  - PDD ready
  - Host Country approved
  - Validated
  - Requested for registration
  - Registered
9. CDM methodology
  - Approved
    - Reference no.----- text box
  - Not approved
    - Reference no.----- text box
10. Technology to be employed
  - Whether state of art
  - Technological innovation (if any)..... text box (max. 50 words)
11. Project proponents credentials (No. of Projects promoted in the past & their status)\*..... text box (max. 200 words)
12. PDD consultants credentials (No. of Projects promoted in the past & their status)\*..... text box (max. 200 words)
13. Brief description of project..... text box (max. 200 words)

**Format for tracking project status**

| <b>CDM Process Stage</b>      | <b>Status</b>  |   |           |           |  |
|-------------------------------|--|---|-----------|-----------|--|
| <b>Methodological Details</b> | Approved   |   |           |           |  |
|                               | If New   | If Approved                             | Number ?  |           |  |
|                               |  | Under review                            | Status    | b         |  |
|                               |  | Cancelled                               | What Next | c         |  |
|                               |  |   |           |           |  |
| <b>Validation Details</b>     | <i>Validator Selection</i>   |   |           |           |  |
|                               | DOE Details (Name, Location, etc.,)  |   |           |           |  |
|                               | Validation Contract Establishment  |   |           |           |  |
|                               | <i>Validation Status</i>   |   |           |           |  |
|                               | Preliminary validation (under specific buyers programme such as CERUPT, Finland tender etc.) |   |           |           |  |
|                               | Project Available on the UNFCCC the website  |   |           |           |  |
|                               | <i>Validation Result</i>   | Validated                               | Cancelled | What Next |  |
|                               |  |   |           |           |  |
| <b>Registration Details</b>   | <b>Status</b>  |   |           |           |  |
|                               | Request for Registration   |   |           |           |  |
|                               | Registered   | Request for review                      | Cancelled | What Next |  |
|                               |  |   |           |           |  |
| <b>Monitoring Details</b>     | Monitoring Period Details (Start and End date)   | CERs Accounted during monitoring period |           |           |  |
|                               |  | Total volume of CERs issued so far      |           |           |  |
|                               |  |   |           |           |  |
| <b>Verification Details</b>   | DOE Details  | Status                                  |           |           |  |
|                               |  |   |           |           |  |
| <b>Legal Issues</b>           | ERPA Details   |   |           |           |  |
|                               | Name of the law firm facilitated for ERPA, Advisor of ERPA                                   |   |           |           |  |
|                               | <i>ERPA Status</i>   | Signed                                  |           |           |  |
|                               |  | Cancelled                               | What Next |           |  |
| <b>CERs Sales</b>             | If Buyer Identified  | Yes                                     |           |           |  |
|                               |  | No                                      |           |           |  |
|                               |  |   |           |           |  |

**Format for host country approved projects**

| No. | Sector | Project Name<br>& Location | Name and<br>contacts of<br>Project<br>Owner | Project<br>start date | Project<br>completion<br>date | CERs until<br>2012 | Brief<br>Description                        |
|-----|--------|----------------------------|---|-----------------------|-------------------------------|--------------------|---|
|     |        |                            |   |                       |                               |                    | <b>View<br/>(Hyperlink<br/>to pdf file)</b> |
|     |        |                            |   |                       |                               |                    |   |

## Appendix 9

### **Rough estimate of resources required to develop an advanced and a simple DNA website for a Non-Annex I Country<sup>5</sup>**

| S. No. | Component   | Cost per page or per unit | Cost involved (in €)<br>(no. of unit X cost per unit) | Cost involved (in €)<br>(no. of unit X cost per unit) |
|--------|---|---------------------------|---|---|
|        |   | (in €)                    | Advanced website                                      | Simple website  |
| 1.     | Home page   | 70                        | 1 x 70<br>= 70  | 1 x 70<br>= 70  |
| 2.     | Static page   | 10                        | 40 x 10<br>= 400                                      | 10 x 10<br>= 100                                      |
| 3.     | Flash design  | 10                        | 4 x 10<br>= 40  | 0<br>= 00   |
| 4.     | Online forms (feedback form and online application submission)                        | 20                        | 2 x 20<br>= 40  | 0<br>= 00   |
| 5.     | Project list with shortlisting option and control panel                               | 120                       | 1 x 120<br>= 120                                      | 1 x 120<br>= 120                                      |
| 6.     | Tracking mechanism  | 200                       | 1 x 200<br>= 200                                      | 0<br>= 00   |
| 7.     | Searchable database (for buyers)  | 230                       | 1 x 230<br>= 230                                      | 0<br>= 00   |
| 8.     | Login and access right for registering the profiles for database                      | 200                       | 1 x 200<br>= 200                                      | 0<br>= 00   |
| 9.     | Search Engine (within site)   | 150                       | 1 x 150<br>= 150                                      | 0<br>= 00   |
| 10.    | Software requirements   | None                      | 0<br>= 00   | 0<br>= 00   |
| 11.    | Domain name registration  | -                         | 40  | 40  |
| 12.    | Hosting / Server space  | 200 per 50 MB per year    | 200   | 100   |
| 13.    | Manpower <sup>6</sup>   | 5 /person-hour            |   |   |
|        | 14a. Content development and coordination with web-developer                          |                           | 80 x 5<br>= 400                                       | 80 x 5<br>= 400                                       |
|        | 14b. Surfing the internet for new information and uploading/modifying the information |                           | 500 x 5<br>= 2500                                     | 20 x 5<br>= 100                                       |
| 14.    | Contingencies (Internet facility, phone etc.)   | 50                        | 50  | 50  |
|        | <b>Total</b>  |                           | <b>1490 (fixed)<br/>+<br/>3150 (per year)</b>         | <b>330 (fixed)<br/>+<br/>650 (per year)</b>           |

<sup>5</sup> The cost is estimated for an Indian scenario for a website developed with the help of HTML. If the site is developed with Web Content Management System (WCMS), approximate cost for the advanced site and simple website will be around 1000 € and 200 € respectively. These figures are calculated after excluding the costs involved in the components 11 to 14. The estimate is applicable when the website is development work is outsourced to some private web developer but it is maintained inhouse. The components 1-11 and 14a require only one-time investment, components 12 and 14 are estimated as the cost per year. Costs are likely to be higher outside India.

<sup>6</sup> Provided the content writing and maintenance is done by any staff already working with DNA who has the general knowledge about the computer applications and the CDM.